

ENVIRONMENTAL ASSESSMENT

---

SECURITY FORCES  
REGIONAL TRAINING CENTER  
AT  
LITTLE ROCK AIR FORCE BASE  
ARKANSAS

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AIR EDUCATION AND TRAINING COMMAND

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## ACRONYMS AND ABBREVIATIONS

°F	degrees Fahrenheit	EIS	Environmental Impact Statement
189 AW	189 <sup>th</sup> Airlift Wing	EO	Executive Order
314 AW	314 <sup>th</sup> Airlift Wing	EPCRA	Emergency Planning and Community Right-to-Know Act
4WD	four-wheel drive	EPW	Enemy Prisoners of War
463 AG	463 <sup>rd</sup> Airlift Group	ESA	Endangered Species Act
ABD	Air Base Defense	FFCA	Federal Facility Compliance Act
ACC	Air Combat Command	FONSI	Finding of No Significant Impact
ACHP	Advisory Council on Historic Preservation	FTX	field training exercise
ACM	asbestos-containing material	GCS	ground combat skills
ADEQ	Arkansas Department of Environmental Quality	GPS	Global Positioning System
AETC	Air Education and Training Command	HAZMART	Hazardous Materials Pharmacy
AFI	Air Force Instruction	HHR	hand held radio
AFMC	Air Force Materiel Command	HHTI	Hand Held Thermal Imager
AFOSH	Air Force Occupational Safety and Health	IAW	in accordance with
AFRC	Air Force Reserve Command	IDP	Internally Displaced Persons
AIRFA	American Indian Religious Freedom Act	IFTU	Intelligence Formal Training Unit
AMC	Air Mobility Command	IICEP	Interagency and Intergovernmental Coordination for Environmental Planning
ANG	Air National Guard	IRP	Installation Restoration Program
AOC	Area of Concern	kg	kilogram
AOP	Arkansas Ordnance Plant	kV	kilovolt
AQCR	Air Quality Control Region	LOGDET	Logistics Detail
AS	airlift squadron	LOS	Level of Service
AST	aboveground storage tank	LRAFB	Little Rock Air Force Base
AT/FP	Anti-Terrorism/Force Protection	MAC	Military Airlift Command
BMP	Best Management Practice	MAJCOM	Major Command
Btu/hr	British thermal units per hour	mgd	million gallons per day
CAA	Clean Air Act	mm	millimeter
CAAA	Clean Air Act Amendments	MOOTW	Military Operations Other Than War
CADS	Combat Aerial Delivery School	MOUT	Military Operations in Urban Terrain
CATS	Combat Aircrew Tactics School	MSA	munitions storage area
CEQ	Council on Environmental Quality	msl	mean sea level
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act	MTW	major theatre war
CERFA	Community Environmental Response Facilitation Act	MWS	Mobility Weapons School
CFR	Code of Federal Regulations	NAAQS	National Ambient Air Quality Standards
CO	carbon monoxide	NAGPRA	Native American Graves Protection and Repatriation Act
CPX	Command Post Exercise	NAS	National Audubon Society
CWA	Clean Water Act	NEPA	National Environmental Policy Act
DoD	Department of Defense	NHPA	National Historic Preservation Act
DOL	United States Department of Labor	NO <sub>2</sub>	nitrogen dioxide
DOPAA	Description of Proposed Action and Alternatives	NO <sub>x</sub>	nitrogen oxides
DRMO	Defense Reutilization and Marketing Office	NPDES	National Pollutant Discharge Elimination System
EA	Environmental Assessment	NRHP	National Register of Historic Places
EIAP	Environmental Impact Analysis Process	O <sub>3</sub>	ozone
		OP/LP	observation post/listening post
		Pb	lead
		PCB	polychlorinated biphenyl
		PIF	Partners in Flight

**FINDING OF NO SIGNIFICANT IMPACT FOR  
SECURITY FORCES REGIONAL TRAINING CENTER  
314<sup>TH</sup> AIRLIFT WING  
LITTLE ROCK AIR FORCE BASE, ARKANSAS**

**AGENCY:** United States Air Force, Air Education and Training Command.

**PURPOSE:** The United States Air Force (USAF) prepared an Environmental Assessment (EA) of the potential environmental consequences of establishing the proposed Security Forces (SF) Regional Training Center (RTC) at Little Rock Air Force Base (LRAFB). The EA was completed pursuant to the National Environmental Policy Act (NEPA); the Council on Environmental Quality (CEQ) regulations implementing NEPA (Title 40 Code of Federal Regulations [CFR] Sections 1500-1508), Department of Defense (DoD) Directive 6050.1, and Air Force Instruction (AFI) 32-7061.

**PROPOSED ACTION:** The Proposed Action is to establish a Major Command (MAJCOM) level SF RTC at LRAFB that would provide a necessary training opportunity for periodic re-certification and training of Air Education and Training Command (AETC) and Air Force Reserve Command (AFRC) SF personnel in ground combat skills. There will be an eventual throughput of up to 2,880 SF trainees and a permanent training cadre of up to 50 that will be located at LRAFB.

The proposed permanent establishment of the SF RTC will be in the northeast quadrant of LRAFB near the old Strategic Air Command alert pad. The weapons re-certification component of the training will be conducted at nearby Camp Robinson. This type of training is a normal everyday occurrence at Camp Robinson.

Establishment of a SF RTC at LRAFB will include the construction and/or upgrade of some facilities as well as maintenance of certain unimproved roadways. It will also include construction of some facilities in a previously developed part of the Base, as well as the further development of a four-wheel drive (4WD) confidence course.

**ALTERNATIVE ACTION:** Under the Alternative Action, the RTC would be developed at the southwest end of the runway on an approximately 400-acre site that lacks any existing facilities. The RTC would be developed into a "tent compound," with no permanent facilities at the site other than the Military Operations in Urban Terrain (MOUT) area.

**NO ACTION ALTERNATIVE:** Under the No Action alternative, the AETC RTC would not be developed at LRAFB, nor at any other location. AETC and AFRC would continue to operate without their own, dedicated RTC for SF. Continued lack of available training would result in SF personnel falling further behind in refining or upgrading critical ground combat skills (GCS)



needed for a major theatre war (MTW), contingency, or steady state deployment operations. AETC and AFRC SF unit type codes (UTCs) would continue to lack the necessary training to ensure successful missions during deployments.

## **SUMMARY OF FINDINGS:**

***Earth Resources.*** It is estimated that approximately 2.75 acres will be temporarily disturbed as a result of construction activities and grading of the 4WD confidence course, and of that acreage, 0.75 acres will become impervious as a result of building and pavement construction. Sedimentation ponds and well-maintained silt fences will be used to limit or eliminate soil movement, stabilize runoff, and control sedimentation during construction. Other construction Best Management Practices (BMPs) will be employed to minimize the potential for erosion and, therefore, impacts to earth resources will not be significant.

***Water Resources.*** An additional 0.75 acres of impervious cover will result in a minor increase in storm water runoff. Any potential impacts to storm water associated with the Proposed Action will be managed through the implementation of a storm water pollution prevention plan as part of the construction permit requirements enforced by United States Environmental Protection Agency (USEPA) and the State of Arkansas, which will include the use of appropriate construction BMPs as described above. There will be no significant impacts to water resources or water quality as a result of this action.

***Biological Resources.*** An estimated 2.75 acres of land will be temporarily disturbed as a result of proposed construction and grading activities. The proposal is not expected to have an impact on threatened or endangered flora or fauna because there are none known to occur on LRAFB. There will be no wetlands impacted by the action. Impacts to biological resources are not expected to be significant.

***Air Quality.*** As a result of construction activities under the proposal, annual emissions will increase during the duration of the construction and grading as follows: 1.3 tons of carbon monoxide (CO), 0.4 tons of volatile organic compounds (VOCs), 5.4 tons of nitrogen dioxide (NO<sub>2</sub>), 0.4 ton of particulate matter less than or equal to 10 micrometers in diameter (PM<sub>10</sub>), and less than 0.1 ton of sulfur dioxide (SO<sub>2</sub>). As a result of operational emissions after the proposal is implemented, it is expected that annual emissions will increase as follows: 0.2 tons of CO, 0.1 tons of VOCs, 0.1 tons of NO<sub>2</sub>, 2.1 tons of PM<sub>10</sub>, and <0.1 ton of SO<sub>2</sub>. This is based on full build-out of the RTC. Pulaski County is in attainment for all criteria pollutants and therefore a conformity analysis is not required and was not conducted. It is expected that these additional emissions will not result in any long-term impacts on the air quality of Pulaski County or of Air Quality Control Region (AQCR) 016. There will not be significant impacts to air quality.

***Land Use/Visual Resources.*** Proposed activities are not incongruous with current activities in this portion of LRAFB. None of the proposed activities will cause a change in the governing land use plan. Activities proposed will not deleteriously affect land use patterns or visual resources on base and significant impacts are not expected.

***Socioeconomics/Environmental Justice.*** There will be no substantial population changes within the region of influence, substantial expenditures, or major infrastructure changes as a result of establishing the RTC at LRAFB.

***Solid and Hazardous Materials and Waste.*** During construction activities, diesel fuel will be stored to fuel construction equipment. The fuel will be stored within portable containment basins to manage any potential spills during construction activities. There are six IRP sites that lie within the boundary of the proposed RTC. These sites would not be impacted by the proposed construction activities or operation of the RTC. Construction and demolition activities are not expected to generate hazardous or petroleum wastes. It is estimated that approximately 62 tons of solid wastes will be generated annually as a result of establishing the RTC at LRAFB. This will have a negligible impact on the local landfill. There will be no significant impacts as a result of solid and hazardous materials and wastes as a result of this proposal.

***Cultural Resources.*** Although 12 archaeological sites have been identified in or near the proposed SF RTC parcels, 11 of them have been determined ineligible for listing in the NRHP and would not be adversely impacted. Site 3PU450, a possible cemetery location, is unevaluated. This site is located along the boundary of the Proposed Action area where no construction or earthmoving is planned, and would be avoided. Consultation with the SHPO has indicated that no known historic properties would be affected by this undertaking. In the unlikely event that archaeological resources are encountered during earthmoving, per Section 2.1 of AFI 32-7065, *Cultural Resources Management*, work would stop at that location and the resources would be managed in compliance with Section 106 of the NHPA. There are no known federally-recognized Native American lands or resources within the location of the proposal, and the action is not considered to have the potential to affect Native American lands, treaty rights, or other tribal interests. Impacts are not expected to be significant.

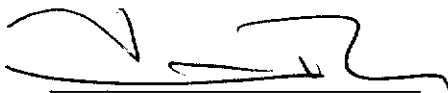
***Safety.*** During normal construction activities, catastrophic accidents are rare. Strict adherence to all applicable occupational safety requirements will minimize the relatively low risk associated with these activities. Training conducted at the RTC will have some inherent ground safety considerations; however, these will not be an atypical element of military training. No significant impacts to safety are expected as a result of the proposal.

***Infrastructure.*** Minor short-term disruptions in utility services, associated with construction at the main RTC camp may occur; however, these will be localized and of short duration. A

throughput of up to 2,880 trainees annually is not expected to stress any utility system at LRAFB. No significant long-term impacts to transportation or utility system components are anticipated as a result of this proposal.

**ENVIRONMENTAL JUSTICE:** Activities associated with the Proposed Action, Alternative Action, and No Action Alternative will not impose adverse environmental effects on adjacent populations. Therefore, no disproportionately high and adverse effects will occur to minority or low-income populations.

**FINDING OF NO SIGNIFICANT IMPACT (FONSI):** Based on my review of the facts and analysis in the EA, I conclude that the Proposed Action will not have a significant impact either by itself or considering cumulative impacts. Accordingly, the requirements of NEPA, the CEQ Regulations, and AFI 32-7061 have been fulfilled, and an environmental impact statement is not required and will not be prepared.



CURTIS L. ROSS  
Colonel, USAF  
Chairperson, Environmental Protection Committee

30 Jun 04

Date

ENVIRONMENTAL ASSESSMENT

SECURITY FORCES  
REGIONAL TRAINING CENTER

AT

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ARKANSAS

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## **1.0 PURPOSE AND NEED**

### **1.1 PURPOSE AND NEED FOR THE PROPOSED ACTION**

Little Rock Air Force Base (LRAFB) is the home of the 314<sup>th</sup> Airlift Wing (314 AW), and is the only C-130 training base in the Department of Defense (DoD). The 314 AW trains C-130 aircrew members from all branches of the services and 27 allied nations. Tenant units located at the base include the 463<sup>rd</sup> Airlift Group (463 AG), Mobility Weapons School (MWS) under Air Mobility Command (AMC), and the 189<sup>th</sup> Airlift Wing (189 AW) under the Air National Guard (ANG). The combined mission is to organize, equip, and train combat-ready airlift units to operate anywhere in the world (United States Air Force [USAF] 1999).

The 314 AW at LRAFB, Arkansas is considering establishing a Major Command (MAJCOM) level Security Forces (SF) Regional Training Center (RTC) at LRAFB that would provide a necessary training opportunity for periodic re-certification and training of Air Education and Training Command (AETC) SF personnel in ground combat skills (GCS). The purpose of the proposal is to establish a RTC and improve the effectiveness of SF training for critical Air and Space Expeditionary Force and Air Base Defense (ABD) skills, by concentrating on ABD tactics and completion of force protection Level II training in a relatively realistic field environment. The LRAFB site would provide the capability to add facilities and specialized training curriculum to meet the needs of combatant commands at a future date. This proposal would enable AETC to meet its GCS training requirements without relying on the limited training opportunities available at other MAJCOM RTCs.

In accordance with the National Environmental Policy Act (NEPA) of 1969 (42 United States Code [USC] 4321-4347), Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations [CFR] §§ 1500-1508), and Air Force Instruction (AFI) 32-7061 *Environmental Impact Analysis Process*, the 314 AW is preparing an Environmental Assessment (EA) that will consider the potential consequences to the human and natural environment that may result from development of the SF RTC. AFI 32-7061 addresses USAF implementation of NEPA and directs USAF officials to consider the environmental consequences of any proposal as part of the decision making process.

The Proposed Action is necessary because there are currently serious shortfalls in availability of SF training opportunities at other MAJCOM RTCs. AFI 31-101, *Air Base Defense*, paragraph 3.2.5, established a requirement to train all personnel assigned to a Unit Type Code (UTC) at an established RTC once every three years. AETC does not currently have a dedicated RTC, and must therefore rely on other MAJCOM RTCs (Air Combat Command [ACC], AMC, and Air Force Materiel Command [AFMC]) to fulfill these training requirements.

Existing MAJCOM RTCs such as those listed above, have hosted AETC UTC training previously; however, recent increases in overseas deployments have increased each MAJCOM's need to train their own forces and have left shortfalls in mandatory training for those MAJCOMs that lack their own dedicated RTC, as is the case with AETC. Most MAJCOM RTC's are currently unable to provide enough training opportunities for their own personnel, and are at maximum capacity. There is currently limited opportunity for AETC SF personnel to receive this necessary recurrent training, which has resulted in SF personnel falling behind in refining or upgrading critical GCS needed for a major theatre war, contingency, or steady state deployment operations. Recent deployments to Afghanistan and Iraq, and other locations in the world, have revealed the importance and necessity for recurrent high quality GCS training for SF personnel. The general lack of available RTC opportunities can result in the deployment forward of personnel that lack the requisite knowledge and training necessary to perform their duties in hostile or potentially hostile locations.

AETC has an annual training requirement of 2,030 SF personnel. There are 237 AETC SF UTCs that must be trained every three years, and 130 of those are deployable during wartime and must complete GCS training. A UTC denotes a specific functional group (security force, civil engineers, services, fliers, maintenance, etc.). The numbers of personnel and types of associated equipment vary based on the functional group and the specific requirement of the mission. Each UTC has a code, which denotes functional type and personnel/equipment/capabilities. For example, QFEB2 is a common UTC code, which is a 13-person squad with weapons and support equipment. However, there is also a UTC that has only one person and one dog (QFEBR). At any given time the SF RTC at LRAFB would have as many as 180 SF participating in GCS training, which would be any number of UTCs. Participating UTCs would travel to the LRAFB SF RTC as a team to maintain and enhance team skills and team integrity.

In addition, the Air Force Reserve Command (AFRC), who will partner with AETC on the RTC, has the same SF RTC training requirement for their SF UTCs, and similarly, has no dedicated RTC. AFRC has an annual training requirement of 750 SF personnel.

AETC, known as the "training command," is in the unique position of not being capable of training its own forces due to this shortfall. However, AETC has the location and the majority of the necessary training areas already in-place at LRAFB to support the development of a joint AETC/AFRC RTC.

## **1.2 LOCATION OF THE PROPOSED ACTION**

LRAFB is a USAF training installation under the AETC. The installation comprises 6,128 acres and is located approximately 15 miles north of the city of Little Rock in central Arkansas (Figure

1.2-1). The base lies in Pulaski County, in the town of Jacksonville. Figure 1.2-2 shows the general layout of LRAFB. United States (U.S.) Route 67/167 borders LRAFB on the eastern boundary and State Route (SR) 107 borders the base on the western boundary. Vandenberg Boulevard is the main access to LRAFB.

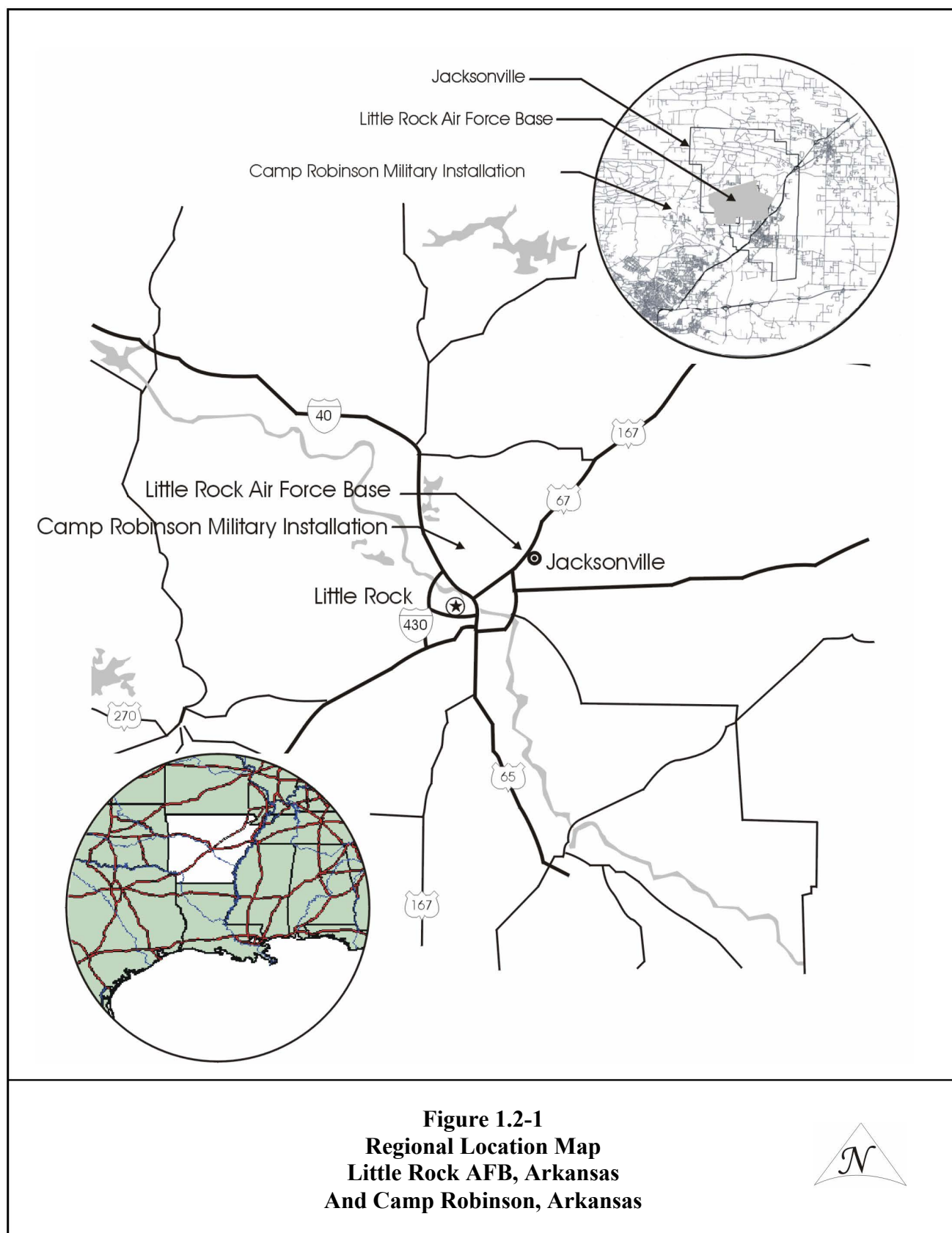
The main runway at LRAFB (07/25) is 12,000 feet long and is classified as a Class B runway, based on the type of aircraft that use it (primarily C-130s). Class B runways are primarily intended for high performance and large, heavy aircraft. Class A runways are primarily intended for small, light aircraft, are ordinarily less than 8,000 feet long, and less than 10 percent of their operations involve aircraft in the type B category (Unified Facilities Criteria [UFC] 3-260-01, 2001).

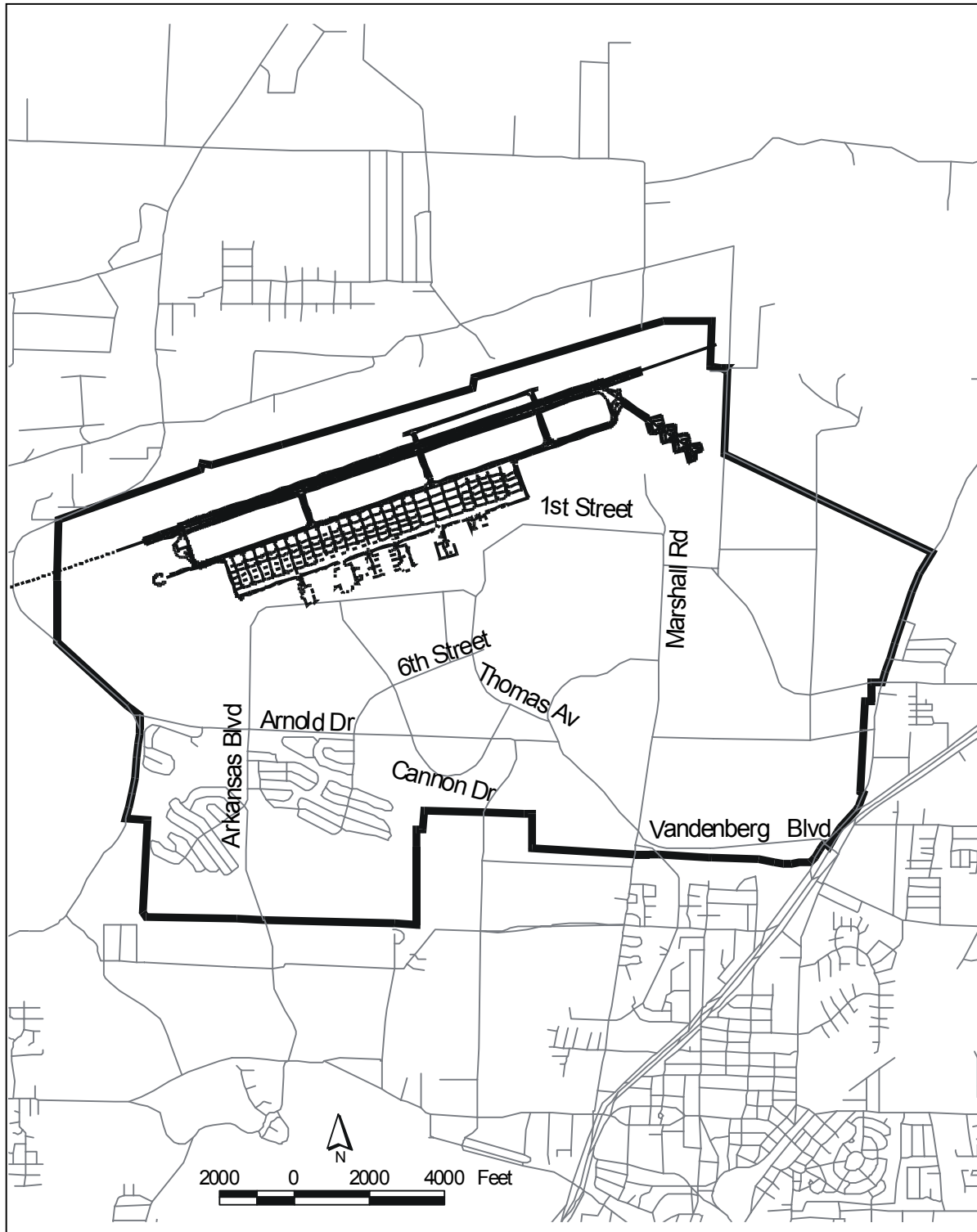
LRAFB was designed and constructed as a medium jet bomber Base in 1953, and the Base was officially dedicated and opened to air traffic on 1 August 1955. Originally operated under the Strategic Air Command (SAC), the Base served as a facility for reconnaissance aircraft, medium jet bombers, and aerial refueling aircraft. The Base has since been operated under the Tactical Air Command (TAC) (1970-1974), the Military Airlift Command (MAC) (1974-1992), the AMC (1992-1993), the ACC (October 1993-April 1997), and the AETC from May 1997 to the present (USAF 2001a).

The current LRAFB dual military mission consists of C-130 crew training and operational airlifts. Base units involved in these missions include the 314 AW, the 189 AW, the 463 AG, and the MWS.

The 314 AW trains all C-130 crewmembers from all branches of the U.S. armed services, the U.S. Coast Guard, and students from 27 allied nations. The 314 AW is comprised of four groups—operations, maintenance, mission support, and medical—and a headquarters element. Three airlift squadrons (AS), (the 48 AS, 53 AS, and 62 AS) and the 314<sup>th</sup> Operations Support Squadron, along with the flight simulator contractor, make up the “schoolhouse” and together accomplish the wing’s primary mission of training C-130 crewmembers.

The 189 AW of the Arkansas ANG works with the 314 AW to provide C-130 aircrew training. In times of emergency, as declared by the governor of Arkansas, the 189 AW operates at the direction of the state adjutant general.





**Figure 1.2-2**  
**Base Boundary Map**  
**Little Rock AFB, Arkansas**

The 463 AG, a tenant unit assigned to AMC, comprises two flying squadrons, the 50 AS and 61 AS, which carry out operational airlift missions throughout the world. The 463 AG also has support and logistics squadrons that provide vital support to help make the group's mission possible.

The MWS is a selectively manned Mobility Air Forces Center of Excellence. The MWS consists of the 29<sup>th</sup>, 57<sup>th</sup> and 509<sup>th</sup> Weapons Squadrons; the Tactics Division (which teaches the Combat Aircrew Tactics School [CATS] and Senior Officer Tactician's Course [SOTC]); and the Intelligence Division which oversees the three Intelligence Formal Training Unit (IFTU) courses and provides critical support to the AMC mission.

Under the proposal, the majority of the training would be conducted in the northeastern portion of LRAFB. Camp Robinson, located approximately 10 miles west of LRAFB, would be utilized primarily for weapons re-certification requirements (Figure 1.2-1). Camp Robinson has 32,000 acres suitable for training in many military capabilities, including 23 small arms ranges. The facilities at Camp Robinson support a wide variety of military and civilian agencies at the federal, state, and local levels, and are also the headquarters of the Arkansas National Guard. The proposed use of Camp Robinson by the AETC SF RTC does not represent a change from baseline conditions at Camp Robinson and is well within the installation's current evaluated capacity (Military Department of Arkansas 2001). Furthermore, the RTC use of Camp Robinson is typical of everyday activities at the facility. For these reasons, site-specific analysis for Camp Robinson will not be included in this EA.

### **1.3 DECISION TO BE MADE**

The decision to be made by the USAF is whether to establish a joint AETC/AFRC SF RTC at the proposed site at LRAFB. An alternative to the Proposed Action is to establish the joint SF RTC at LRAFB at an undeveloped site on the western portion of the base. No permanent facilities would be established under the alternative action. The No Action alternative is also considered under this review.

### **1.4 SCOPE OF THE ENVIRONMENTAL REVIEW**

This EA identifies, describes, and evaluates the potential environmental impacts that may result from the permanent establishment of the joint AETC/AFRC SF RTC at LRAFB, the alternative action and the No Action alternative. As appropriate, the affected environment and environmental consequences of the Proposed Action and alternatives may be described in terms of site-specific descriptions or regional overview. Finally, the EA identifies measures that would prevent or minimize environmental impacts.



The resources that could be impacted and will thereby be analyzed in the EA include: earth resources, water resources, biological resources, air quality, land use and visual resources, socioeconomics, solid and hazardous materials and wastes, cultural resources, safety, and infrastructure.

Executive Order (EO) 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, was issued by the President on February 11, 1994. In the EO, the President instructed each Federal Agency to make “achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.” The Federal Interagency Working Group on Environmental Justice defines ‘adverse’ as “having a deleterious effects on human health or the environment that is significant, unacceptable, or above generally accepted norms.” Based on analysis of impacts in this EA, a determination on significance of impacts will be made in a decision document. If anticipated impacts would be significant, the Air Force would either prepare an Environmental Impact Statement (EIS) or they would not implement the proposal. If impacts would not be significant, a Finding of No Significant Impacts (FONSI) would be prepared. Accordingly, Environmental Justice will be addressed either in a FONSI or in a Record of Decision (ROD) based on an EIS.

## **1.5 APPLICABLE REGULATORY REQUIREMENTS**

### **1.5.1 NATIONAL ENVIRONMENTAL POLICY ACT**

NEPA requires federal agencies to take into consideration the potential environmental consequences of proposed actions in their decision-making process. The intent of NEPA is to protect, restore, and enhance the environment through well-informed federal decisions. The CEQ was established under NEPA to implement and oversee federal policy in this process. The CEQ subsequently issued the Regulations for Implementing the Procedural Provisions of NEPA (40 CFR Sections 1500–1508) (CEQ 1978). These requirements specify that an EA be prepared to:

- Briefly provide sufficient evidence and analysis for determining whether to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI).
- Aid in an agency’s compliance with NEPA when an EIS is not necessary.
- Facilitate preparation of an EIS when one is necessary.

The activities that are addressed within this EA constitute a federal action and therefore must be assessed in accordance with NEPA. To comply with NEPA, as well as other pertinent environmental requirements, the decision-making process for the Proposed Action includes the development of an EA to address the environmental issues related to the proposed activities. The USAF implementing procedures for NEPA are contained in AFI 32-7061, *Environmental Impact Analysis Process* (32 CFR 989 et seq.).

#### 1.5.2 ENDANGERED SPECIES ACT

The Endangered Species Act (ESA) of 1973 (16 USC §§ 1531–1544, as amended) established measures for the protection of plant and animal species that are federally listed as threatened and endangered, and for the conservation of habitats that are critical to the continued existence of those species. Federal agencies must evaluate the effects of their proposed actions through a set of defined procedures, which can include the preparation of a Biological Assessment and can require formal consultation with the United States Fish and Wildlife Service (USFWS) under Section 7 of the Act.

#### 1.5.3 CLEAN AIR ACT

The Clean Air Act (CAA) (42 USC §§ 7401–7671, as amended) provided the authority for the United States Environmental Protection Agency (USEPA) to establish nationwide air quality standards to protect public health and welfare. Federal standards, known as the National Ambient Air Quality Standards (NAAQS), were developed for six criteria pollutants: ozone (O<sub>3</sub>), nitrogen dioxide (NO<sub>2</sub>), carbon monoxide (CO), sulfur dioxide (SO<sub>2</sub>), particulate matter, and lead (Pb). The Act also requires that each state prepare a State Implementation Plan (SIP) for maintaining and improving air quality and eliminating violations of the NAAQS. Under the CAA Amendments of 1990, federal agencies are required to determine whether their undertakings are in conformance with the applicable SIP and demonstrate that their actions will not cause or contribute to a new violation of the NAAQS; increase the frequency or severity of any existing violation; or delay timely attainment of any standard, emission reduction, or milestone contained in the SIP.

#### 1.5.4 WATER RESOURCES REGULATORY REQUIREMENTS

The Clean Water Act (CWA) of 1977 (33 USC § 1251 *et seq.*) regulates pollutant discharges that could affect aquatic life forms or human health and safety. Section 404 of the CWA, and Executive Order (EO) 11990, *Protection of Wetlands*, regulate development activities in or near streams or wetlands. Section 404 regulates development in streams and wetlands and requires a permit from the United States Army Corps of Engineers (USACE) for dredging and filling in wetlands. EO 11988, *Floodplain Management*, requires federal agencies to take action to reduce

the risk of flood damage; minimize the impacts of floods on human safety, health, and welfare; and to restore and preserve the natural and beneficial values served by floodplains. Federal agencies are directed to consider the proximity of their actions to or within floodplains.

#### 1.5.5 CULTURAL RESOURCES REGULATORY REQUIREMENTS

The National Historic Preservation Act (NHPA) of 1966 (16 USC § 470) established the National Register of Historic Places (NRHP) and the Advisory Council on Historic Preservation (ACHP), outlining procedures for the management of cultural resources on federal property. Cultural resources can include archaeological remains, architectural structures, and traditional cultural properties such as ancestral settlements, historic trails, and places where significant historic events occurred. The Act requires federal agencies to consider potential impacts to cultural resources that are listed, nominated to, or eligible for listing on the NRHP; designated a National Historic Landmark; or valued by modern Native Americans for maintaining their traditional culture. Section 106 of the act requires federal agencies to consult with State Historic Preservation Officers (SHPO) if their undertakings might affect such resources. *Protection of Historic and Cultural Properties* (36 CFR 800 [1986]) provided an explicit set of procedures for federal agencies to meet their obligations under the NHPA, including inventorying of resources and consultation with SHPO.

The American Indian Religious Freedom Act (AIRFA) (42 USC § 1996) established federal policy to protect and preserve the rights of Native Americans to believe, express, and exercise their traditional religions, including providing access to sacred sites. The Native American Graves Protection and Repatriation Act (NAGPRA) (25 USC §§ 3001–3013) requires consultation with Native American tribes prior to excavation or removal of human remains and certain objects of cultural importance.

#### 1.5.6 OTHER REGULATORY REQUIREMENTS

Additional regulatory legislation that potentially applies to the implementation of this proposal includes guidelines promulgated by EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, to ensure that citizens in either of these categories are not disproportionately affected. EO 13186, *Responsibilities of Federal Agencies to Protect Migratory Birds*, requires federal agencies to evaluate the effects of actions on migratory birds with an emphasis on species of concern.

#### 1.5.7 ENVIRONMENTAL COORDINATION

EO 12372, *Intergovernmental Review of Federal Programs*, requires intergovernmental notifications prior to making any detailed statement of environmental impacts. Through the

process of Interagency and Intergovernmental Coordination for Environmental Planning (IICEP), the proponent must notify concerned federal, state, and local agencies and allow them sufficient time to evaluate potential environmental impacts of a proposed action. Comments from these agencies are subsequently incorporated into the Environmental Impact Analysis Process (EIAP).

In a recently formulated policy to address EO 13084, *Consultation and Coordination with Indian Tribal Governments*, the DoD has clarified its policy for interacting and working with federally recognized American Indian and Alaska Native governments. Under this policy guidance, proponents must provide timely notice to, and consult with, tribal governments prior to taking any actions that have the potential to affect protected tribal resources, tribal rights, or Indian lands. Tribal input must be solicited early enough in the planning process that it may influence the decision to be made.

## **1.6 INTRODUCTION TO THE ORGANIZATION OF THE DOCUMENT**

This EA is organized into seven chapters. Section 1.0 contains a statement of the purpose and need for the action, and the location of the Proposed Action. It also provides a summary of the scope of the environmental review, the decision to be made, identification of applicable regulatory requirements, and a description of the organization of the EA.

Section 2.0 contains a brief introduction, describes the history of the formulation of alternatives, describes the alternatives eliminated from further consideration, provides a detailed description of the Proposed Action, describes the No Action and other action alternatives, summarizes other actions anticipated in the region of influence, and provides a comparison matrix of environmental effects for all alternatives. This section also identifies the preferred alternative, and discusses mitigation or best management practices (BMPs), as required.

Section 3.0 contains a general description of the current conditions of the resources that could be affected by the Proposed Action. Section 4.0 is an analysis of the environmental consequences of the Proposed Action, the action alternative and the No Action alternative. Section 5.0 lists the preparers of this document. Section 6.0 lists persons and agencies consulted in the preparation of this EA. Section 7.0 is a list of source documents relevant to the preparation of this EA. Appendix A contains all interagency correspondence regarding the Proposed Action.

## **2.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES**

### **2.1 INTRODUCTION**

The 314 AW at LRAFB, Arkansas is considering the permanent establishment of a MAJCOM level SF RTC at LRAFB that would accommodate the necessary periodic re-certification and training of AETC SF personnel in GCS. The purpose of the proposal is to establish a dedicated SF RTC and improve the effectiveness of SF training for critical ABD skills in a relatively realistic field environment such as the one that LRAFB offers.

In the past, AETC has utilized other MAJCOM SF RTCs to accomplish this recurrent training requirement; however, these other SF RTCs are currently operating beyond their maximum capacity due to their own increased training requirements. This has left AETC SF personnel with unfulfilled training requirements. The result of inadequate training opportunities is that SF personnel could be deployed without adequate re-certification and training in these critical skills.

Under the proposal, the majority of the training would be conducted at LRAFB. Camp Robinson, located approximately 10 miles west of LRAFB would be utilized primarily for small arms re-certification needs. The facilities at Camp Robinson support a wide variety of military and civilian agencies at the federal, state, and local levels, and are also the headquarters of the Arkansas National Guard. Camp Robinson has 23 ranges for training with various weapons.

Ground Combat Skills that would be trained at the proposed joint AETC/AFRC SF RTC include:

- Basic Skills, such as use of signals, small arms re-certification, employment of observations posts/listening posts, terrain navigation.
- Convoy and ambush procedures.
- Four-wheel drive (4WD) negotiation and navigation.
- Tactical movement, both individually and as a group.
- Military Operations in Urban Terrain (MOUT).
- Individual and team weapons employment.
- Military Operations Other Than War (MOOTW).

## **2.2 HISTORY OF THE FORMULATION OF ALTERNATIVES**

During the process of proposal development, sites for the SF RTC at LRAFB were identified that could potentially accommodate the project requirements. Criteria for the selection of the site were identified and are described below.

Selection criteria for the site include the following considerations:

- Facilities/structures/infrastructure must be available to minimize start-up time and costs.
- There must be available capacity at the selected location for a permanent SF RTC facility, including a permanent cadre of 50 as well as a throughput of nearly 2,880 trainees annually.
- Varied training terrain must be available, including densely vegetated terrain as well as open spaces.
- Existing roads must be available for convoy operational training.
- There must be a remote component to the site.
- A clearing that can serve as a Mock Base (Secure and Defend area) must be available to practice ABD techniques.
- Small arms training capability must be available.

## **2.3 IDENTIFICATION OF ALTERNATIVES ELIMINATED FROM FURTHER CONSIDERATION**

During the process of proposal development, other AETC AFB locations were considered that could serve as a permanent RTC training site and accommodate the selection criteria identified above. LRAFB was identified as the only feasible site primarily because similar training activities have occurred at LRAFB previously, and therefore a considerable amount of the necessary infrastructure already exists at the site. This existing infrastructure can accommodate additional capacity in terms of providing useful training opportunities, and therefore serves as an optimal site for the RTC. Additionally, LRAFB is a centrally located AETC installation and would provide easy access to the majority of trainees. LRAFB provides the optimal and logical site for the proposed RTC.

## 2.4 PROPOSED ACTION (PREFERRED ALTERNATIVE)

The Proposed Action is to establish a joint AETC/AFRC SF RTC at LRAFB, with associated weapons training being conducted at nearby Camp Robinson. LRAFB and its neighbor Camp Robinson have nearly all the requisite infrastructure in-place to support the needs of this crucial AETC/AFRC recurrent SF training requirement. The proposed permanent establishment of the SF RTC would be in the northeast quadrant of LRAFB near the old SAC alert pad. The weapons re-certification component of the training would be conducted at Camp Robinson. This type of training is a normal everyday occurrence at Camp Robinson.

Establishment of a SF RTC at LRAFB would include the construction and/or upgrade of some facilities as well as maintenance of certain unimproved roadways. It would also include construction of training props, such as observation posts/listening posts, as well as the further development of the MOUT area to maximize realism in the training scenarios. The MOUT area provides an opportunity to train military procedures in areas with concentrations of civilians, their communities, and their infrastructure.

Training would be accomplished using a modular approach. Instruction training modules have been created to meet specific training requirements. New modules would be added to as needs arise and existing modules would be adapted to evolving training requirements. The following sections discuss the locations, throughput capabilities and schedule, training modules, and construction requirements of the proposed SF RTC.

### 2.4.1 LOCATION OF COMPONENTS OF THE PROPOSED ACTION AT LRAFB

The RTC would be composed of five primary areas:

- Camp Warlord. This is an established camp on LRAFB where all indoor classroom work would occur. Additionally, billeting, dining, showers and latrines, and laundry facilities are located here. However, capacity for additional storage for team and personal equipment does not exist.
- MOUT Area. This area provides a simulated urban environment for training purposes.
- Secure and Defend Area. This area would be used as a mock airbase, which would be the focus of the field training exercise (FTX).
- 4WD Confidence Course. This would provide the trainees hands-on experience in understanding the capabilities of the Humvee.
- Camp Robinson. All small arms re-certification would be conducted here.

The proposed location for the joint AETC/AFRC SF RTC is an area of approximately 600 acres in the northeast quadrant of LRAFB, in Jacksonville, Arkansas (Figure 2.4-1). The SF RTC would utilize existing facilities at an area of LRAFB known as Camp Warlord, which has been used previously as a staging area for various military training sessions. There are a number of existing structures and facilities that are only periodically used at Camp Warlord, including approximately 20 hooches, or cabins, that could house 10 people each. This makes the Camp Warlord location an ideal location for basing the RTC. There is also a cafeteria facility, several classrooms, a large latrine/shower facility, as well as a laundry facility at the Camp Warlord site. This area would serve as the RTC main camp and indoor classroom area.



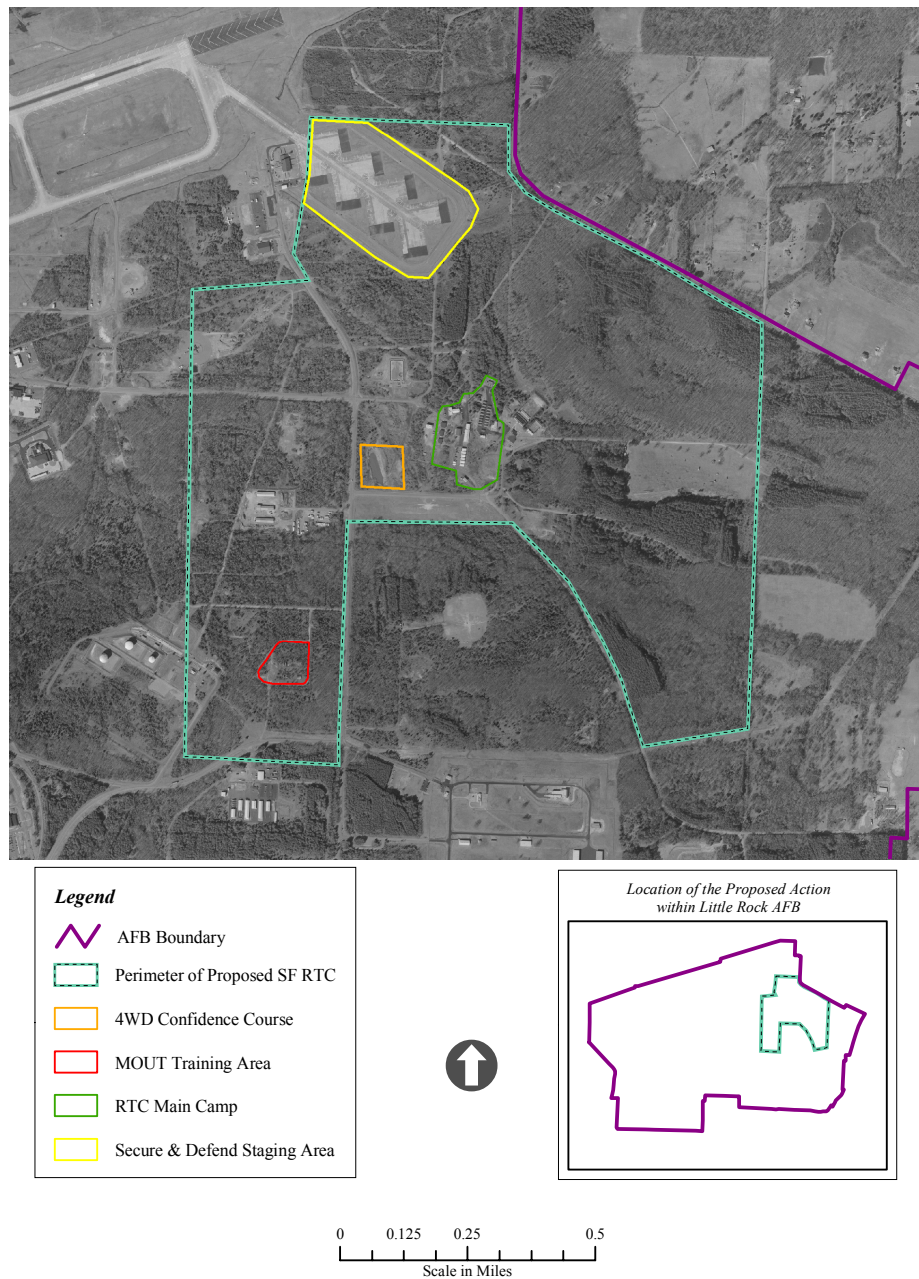
*Existing hooches at Camp Warlord*

Just west of Camp Warlord there is an existing 4-acre undeveloped area that has unpaved roadways throughout it. This site would provide an optimal opportunity for use as a 4WD confidence-training course, which is one of the training modules. There is ample terrain that could provide technical challenges to the Humvee driver and demonstrate to the driver the capabilities of the vehicle.



*Proposed 4WD Confidence Training Course area.*





**Figure 2.4-1.**  
**Proposed Location for Security Forces Regional Training Center**  
**at Little Rock Air Force Base**

Southwest of the RTC main camp is an area where some urban facilities have been previously developed. While these facilities are not in optimal condition for MOUT training, with some modifications and additional amenities, they would serve this purpose well. The existing facilities would be developed into a mock home or business of approximately 2,500 square feet. The existing foundation would be structurally reinforced and the remainder of the facility would be added onto the foundation.



*Proposed MOUT training area.  
Facilities would be upgraded.*

Just north of the RTC main camp is the existing old SAC alert pad (also known as the “Christmas Tree”). This area would serve as the mock base, or the “Secure and Defend area” for the ABD training module as well as for the FTX. Because this pad is adjacent to the active taxiway, an actual aircraft could be sited at this location during portions of the RTC sessions to increase realism of the exercise.



*Old SAC Alert pad that would be used  
for the ABD training module.*

Camp Robinson, approximately 10 miles west of LRAFB, would provide the weapons re-certification capability for the proposed SF RTC. Camp Robinson has 23 small arms ranges that would provide ample opportunity for all participants to complete their weapons re-certification requirements. Each UTC would spend the one-day training module for weapons re-certification at Camp Robinson completing these requirements. Trainees would transit from LRAFB to Camp Robinson using RTC vans. It is anticipated that no more than two vans would travel to Camp Robinson for the purpose of weapons re-certification each of the 10 training module days. Weapons and ammunition would be transported to Camp Robinson via a LRAFB marked vehicle that is designed specifically for transporting weapons and ammunition. Transport to Camp Robinson would be accomplished from the LRAFB west gate via SR 107 to Maryland Avenue and Remount Road. The approximate travel distance is 10 miles.

It is estimated that approximately 72 trainees would do weapons familiarization with each of the M-16, the M-249, and the M-240 weapons. The M-16 and M-249 weapons both use 5.56-millimeter (mm) ammunition and the M-240 uses 7.62 mm ammunition. For the live fire

weapons familiarization conducted at Camp Robinson, each trainee would use approximately 80 rounds of the 5.56 mm ammunition for the M-16, 550 rounds of the 5.56 mm ammunition for the M-249, and 1300 rounds of the 7.62 mm ammunition for the M-60. All other ammunition used on LRAFB during the training activities and the FTX would be blanks rather than live ammunition. The proposed use of Camp Robinson does not represent a substantial change from baseline conditions and is well within the installation's currently evaluated capacity (Military Department of Arkansas 2001).

#### 2.4.2 THROUGHPUT CAPABILITIES

Under the Proposed Action, approximately 80-88 students per two-week session, for 13 sessions annually would go through the RTC. Therefore, the initial throughput of SF trainees would be approximately 1,040 to 1,144 trainees annually. Based on the anticipated needs of the AETC RTC program, the eventual maximum capacity of the RTC at LRAFB would be 180 students per two-week session, for 16 sessions, which would result in a maximum annual throughput of 2,880 trainees. This total includes the 750 AFRC SF personnel that must be trained annually. There would be a permanent increase in personnel at LRAFB as a result of the cadre of up to 50 instructors.

#### 2.4.3 TRAINING MODULES

After arrival at the RTC, squads would be separated into four distinct tracks or modules based on the squad's wartime role. Each UTC would also train in the Basic Skills module. The training modules include: Basic Skills; Entry and Circulation Control; Leader's; Communication/Squad Supply; and Protection/Detection Technologies. Each module has specific objectives to accomplish, and would not necessarily overlap with other training modules (Table 2.4-1). There is a basic skills module that all UTCs would accomplish.

#### 2.4.4 CONSTRUCTION REQUIREMENTS

Although LRAFB has most of the infrastructure already established that would support the SF RTC, there is some construction activity that would be required at LRAFB, and at Camp Warlord, specifically, to support the full development of the RTC (Figure 2.4-2).

- Addition of 1,500 square feet to Building 1377 (Laundry/Latrine facility). This would add onto the laundry portion of the existing facility to accommodate the additional usage required by the RTC activities.
- Addition of a 200 square foot concrete pad to Building 1432. This would be a concrete pad added to the external south side of the building to support weapons cleaning prior to checking weapons back into the weapons storage facility.

**Table 2.4-1. Training Modules for the SF RTC at LRAFB**  
(Page 1 of 3)

<i>Module</i>	<i>Skills Trained</i>	<i>Objectives</i>
Basic Skills	Medical Threats	Given instruction on self first-aid/buddy care, hygiene, climate, weather warnings, cultural sensitivity, and mental health, students would have an increased awareness of personnel welfare issues affecting the deployed SF.
	Conduct of Defense	Provided information concerning establishing airfield defense, students would be able to establish an external and internal defensive operation.
	Cross Cultural Communication	Given instruction on communicating among various cultures, the unit would demonstrate an ability to understand other cultures and to communicate effectively with them.
Tactics	Processing Enemy Prisoners of War (EPW)/Detainees	Regarding EPW/Internally Displaced Persons (IDP)/Refugees, students would be able to identify facts and perform EPW/IDP/Refugee handling procedures with minimal instructor assistance.
	Land Navigation/ Global Positioning System	With instruction and essential equipment, trainees would effectively use installation grid and topographical maps to plot cordons and conduct terrain association; conduct mounted operations utilizing a Global Positioning System (GPS) in the field.
	Barriers, Obstacles and Wire	Trainees would demonstrate knowledge of applying physical security considerations in creating standoff distance from critical facilities, use of barriers, obstacles and wire.
	Mounted/Dismounted Patrols	Students would provide appropriate response capabilities to locate and neutralize any associated threat, perform rehearsals, individual and team movements, and move tactically as a squad.
	Convoys	UTCs would perform hostile and non-hostile convoy operations (both defensive and offensive).
	MOUT/Airfield Operations	Placed in an urban environment, UTCs would successfully search and clear facilities and structures associated with air base operations utilizing individual and team tactics in accordance with (IAW) Progress Checklist.
	Searches	Given instruction on specific individuals, buildings, areas and/or vehicles, students would perform appropriate search procedures based on the tactical situation IAW Progress Checklist.
Entry and Circulation Control	ECPs/Checkpoints	Given general information regarding restricted area and installation entry control points and checkpoints, each UTC would establish, operate and maintain entry control points/check points.

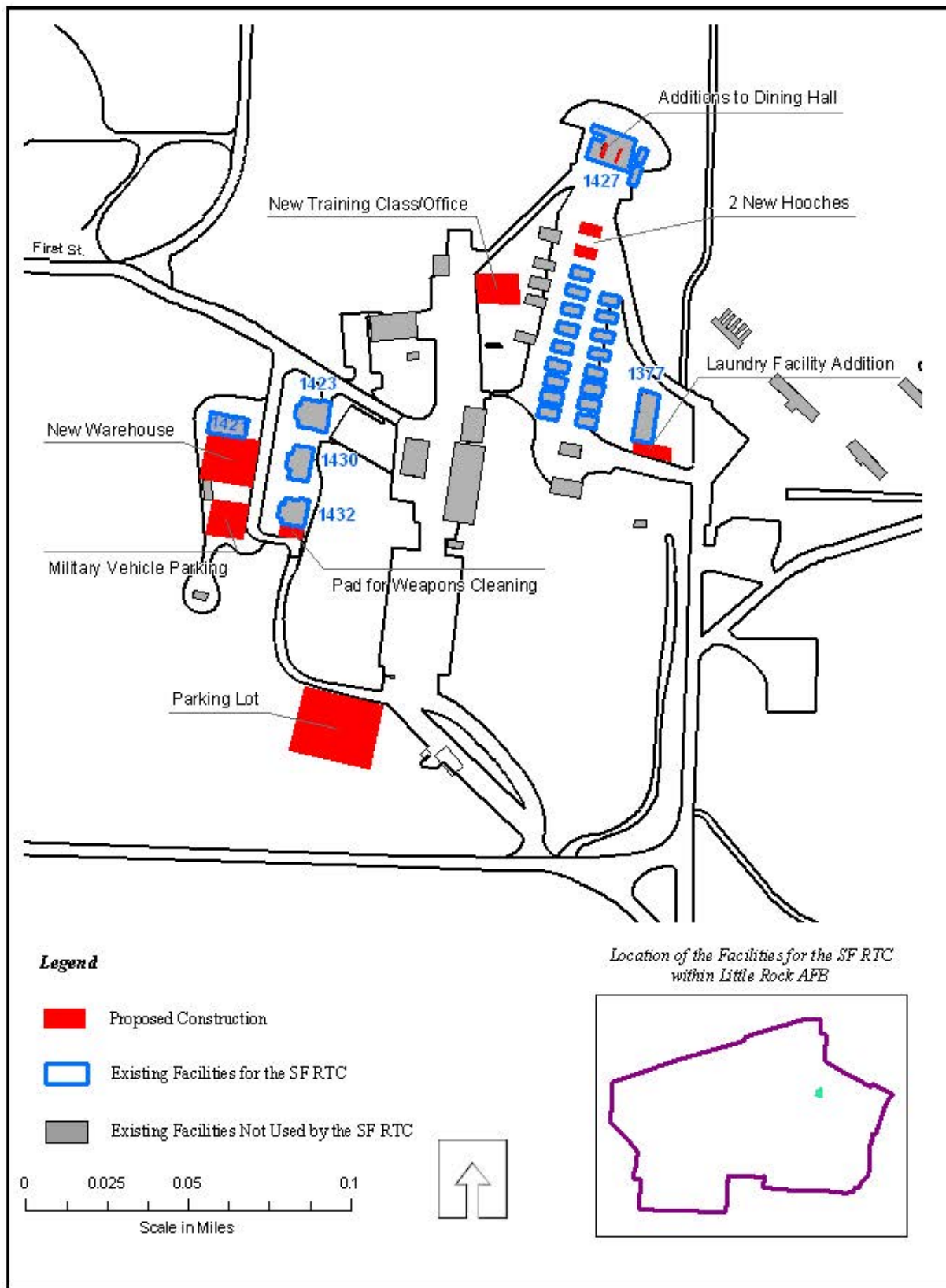
**Table 2.4-1. Training Modules for the SF RTC at LRAFB**  
(Page 2 of 3)

<i>Module</i>	<i>Skills Trained</i>	<i>Objectives</i>
	Non-Lethals	Given general information about Non-Lethal technology and rules of engagement, each student would be able to identify the basic principles, nomenclature and employment considerations of non-lethal weapons systems.
	Listening Post/ Observation Post	Given information pertaining to listening post and observation post duties, students would be able to identify facts about observation techniques, mission, area placement, operation and visual/audible aspects to look and listen.
Leader's Module	Air Base Defense Doctrine	Trainees would be given instruction, essential equipment and materials, to identify basic functions and understand the application of ground defense force management tools. These tools would be utilized to manage personnel in the defensive operations based upon provided scenarios.
	Troop Leading Procedures	Given instruction on troop leadership concepts and principles, the squad leaders would demonstrate effective leadership techniques during the FTX.
	Counter-Attack	Trainees would be provided instruction on Counterattack operations. Trainees would identify facts and principles of reserve force utilization, counterattack, withdraws and delays. Students would develop counter attack plans for use during the Command Post Exercise (CPX)/FTX.
	Reports and Orders	Given instruction on Reports and Orders, students would comprehend/demonstrate the use of reports and orders used in ABD operations.
	ECP Utilization	Given basic information regarding entry control points, each UTC leadership would plan for, establish, operate and maintain entry control points.
	Fire Control Measures	Trainees would be provided procedures for fire control. The trainee must be able to control fire, shift fire and cease-fire with minimal instructor assistance.
Communication/ Squad Supply Custodian	Hand Held Radio	Given an AN/PRC-139(c) hand held radio (HHR) and all required equipment, trainees would program assigned frequencies and place radio into operation.
	Base Station	Provided with technical information concerning Scope Shield II (SSII) Base Station, students would understand how to program the base station and place it into operation while in a classroom/deployed environment.
	Vehicle Adapter	Provided information on the SSII Vehicle Adapter, students would properly operate the Vehicle Adapter in all of its modes of operation. This would also include all ancillary equipment, accessories and troubleshooting.

**Table 2.4-1. Training Modules for the SF RTC at LRAFB**  
(Page 3 of 3)

<i>Module</i>	<i>Skills Trained</i>	<i>Objectives</i>
	Base Defense Operations Center/ Command Post Operation	Given information on security controller responsibilities and duties, controllers would become familiar with the duties necessary to accomplish flight and headquarters operations.
	Signal Operating Instructions (SOIs)	Given a SOI extract and a tactical radio, students would determine correct item numbers, complete call signs, frequencies, suffixes, and expanders. Students would operate a tactical radio net using correct radio procedures, pro-words, phonetic alphabet and numbers.
	Wire Communications and Switchboard	Provided with basic background information, students would identify facts pertaining to operating principles and operating maintenance and care of the TA-312 field phones, SB-22 switchboard and tactical wire employment.
	Alternate Communications Options	Given information about alternate communications, students would be able to identify alternate communications systems.
	Supply Custodian	Given information on equipment control and management, students would be able to prepare, manage and issue Logistics Detail (LOGDET) equipment.
Protection Detection Technologies	Tactical Automated Security Systems (TASS) Overview	Provided with information concerning the Tactical Automated Security System (TASS), the students would be able to identify the nomenclature and employment considerations with instructor assistance during the CPX.
	Vehicle/Hand Held Thermal Imager	Given a Hand Held Thermal Imager (HHTI), PVS-7b, and PVS-4 each student would be familiar with the general characteristics, nomenclature and operation.
	Explosive Awareness/ Blast Mitigation	Given instruction, essential equipment and materials, trainees would be able to identify requirements needed to eliminate or mitigate the explosive vulnerabilities.
	Explosive Detection Equipment	Given an Under Vehicle Surveillance System, IONSCAN, Snake Eye Explosive Detection System, each student would be familiar with the general characteristics, nomenclature, and operation.





**Figure 2.4-2.**  
**Proposed Construction to Support the Regional Training Center at LRAFB**

- Addition of 300 square feet to Building 1427 (dining facility). This addition would simply enclose the courtyard areas and make those a part of the usable interior. This addition and other internal renovations would support the increased usage of the dining facility.
- Construction of a new 5,000 square foot classroom to support indoor training.
- Construction of a new 10,000 square foot warehouse to support the RTC storage needs.
- Construction of a 5,000 square foot military vehicle parking area.
- Construction of a 10,000 square foot personal vehicle parking area for cadre team members.
- Construction of two new hooches that would be approximately 400 square feet each.

Other construction activities that would be required, but would not be at Camp Warlord specifically, include:

- Further development of the existing MOUT training area. The footprint of the existing facility would be utilized. Additional construction would include further development of the building facade so that it resembled a building in an urban setting. A structure of approximately 2,500 square feet would be established on the existing foundation.
- Minor grading at the 4WD confidence course would be required to establish additional challenges. This grading is expected to be minor.
- Permanent establishment of observation post/listening post (OP/LPs). Approximately 10 new OP/LPs would be developed throughout the RTC training area.



*Existing observation post/listening post. Ten additional OP/LPs would be established under the proposal.*







## 2.5 ALTERNATIVE ACTION

Under the alternative action, the RTC would be developed at the southwest end of the runway on an approximately 400-acre site that lacks any existing facilities (Figure 2.5-1). The RTC would be developed into a “tent compound.” No permanent facilities would be developed at the site. The MOUT training area, 4WD confidence course, Secure and Defend Staging Area, and the RTC main camp would all be located as shown in Figure 2.5-1.



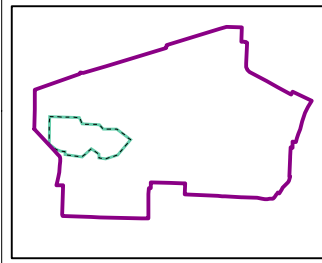


**Legend**

-  AFB Boundary
-  Perimeter of Alternative SF RTC
-  4WD Confidence Course
-  MOUT Training Area
-  RTC Main Camp, Tent City
-  Secure & Defend Staging Area



*Location of the Alternative  
within Little Rock AFB*



0 0.125 0.25 0.5  
Scale in Miles

**Figure 2.5-1.**  
**Alternative Location for the Security Forces Regional Training Center at LRAFB**

MOUT training facilities would need to be developed at the MOUT training area to support this component of the RTC exercise. Similarly, minor modifications to the 4WD area would need to be accomplished to develop it into an adequate training site. This would require minor clearing of vegetation and grading of slopes to establish challenging terrain to develop 4WD skills. The Secure and Defend Staging Area would be used as it currently exists. This site would not allow the use of an actual aircraft, but would necessitate use of a mock aircraft for this component of the training.

The RTC main camp would be developed into a 'tent city,' with portable latrines and showers on site. There would be no permanent facilities at the main RTC camp. Laundry facilities would be used at the main LRAFB laundry, which would require shuttle vehicles.

Camp Robinson would be used for weapons re-certification purposes, as under the Proposed Action.

## **2.6 NO ACTION ALTERNATIVE**

Under the No Action alternative, the AETC RTC would not be developed at LRAFB, nor at any other location. AETC and AFRC would continue to operate without their own, dedicated RTC for SF. Continued lack of available training would result in SF personnel falling further behind in refining or upgrading critical GCS needed for a major theatre war (MTW), contingency, or steady state deployment operations. AETC and AFRC SF UTCs would continue to lack the necessary training to ensure successful missions during deployments.

## **2.7 PAST, PRESENT, AND REASONABLY FORESEEABLE ACTIONS IN THE REGION OF INFLUENCE**

Cumulative impacts to environmental resources result from incremental effects of proposed actions when combined with other past, present, and reasonably foreseeable future projects in the region of influence (ROI). Cumulative impacts can result from individually minor, but collectively substantial, actions undertaken over a period of time by various agencies (federal, state, and local) or individuals. In accordance with NEPA, a discussion of cumulative impacts resulting from projects that are proposed, under construction, or recently completed is required.

Short and long-term planning efforts at LRAFB and the rest of the ROI include this action as well as several others.

Recently completed projects include:

- Construction of a new Squadron Operations facility. The new Squadron Operations Center has consolidated four separate buildings into one state of the art facility. The new facility is approximately 23,000 square feet.

- Construction of the Base Fitness Center. The base fitness center is an approximately 64,000 square foot facility that provides year-round physical fitness and a health and wellness center.

On-going projects include:

- Construction of Temporary Living Facility (TLF). These facilities will be four separate buildings that will provide TLF for military personnel moving to or from LRAFB. There would be two 14-unit buildings, one 12-unit and one 10-unit building.
- Expansion of the Air Park Static Display. Eight to ten aircraft would be added to the existing static display of aircraft. Approximately 0.6 acre will be made impervious as a result of this action.
- Construction of the Triangle Shop. A Triangle Shop is being constructed on 1101 North Redmond Road, just south of LRAFB. The NPDES permit indicates that 40 acres could be disturbed during construction.
- Construction of the North Lake Subdivision. This subdivision is being developed well east of LRAFB, and east of I-67/167. The NPDES permit indicates that up to 80 acres could be disturbed during construction activities.
- Construction of C-130J Flight Simulator. The flight simulator will be a two-story, 40,000 square foot facility that would provide a controlled environment for cockpit training.
- Construction of a Maintenance Training Facility. This facility will provide opportunities for training of C-130 maintenance crews. The facility must be large enough to contain C-130 mock-up components. The facility will be approximately 31,000 square feet.

Reasonably foreseeable planning efforts at LRAFB include the following major projects:

- Correction of several airfield clear zone violations. The clear zone surrounding the airfield would be cleared of vegetation that violates the 50:1 or the 7:1 imaginary surfaces. Approximately 400 acres of vegetated surface will be temporarily disturbed. Approximately 48 acres of wetlands could be impacted.
- Air National Guard development of 17 acres at the southeast corner of the existing ramp for new hangars. This will include three new facilities and some ramp space totaling approximately 143,000 square feet of additional facility space with an increase in impervious surface of approximately five acres.

- Construction of Fire Station. A new fire station (crash and rescue) would be constructed on the site where two buildings have been demolished. The building would be approximately 34,000 square feet.
- Redevelopment of the Base Entry Road. Under this project, the entrance roadway would be reconfigured to facilitate traffic flow and comply with Anti-Terrorism/Force Protection (AT/FP) requirements. Total realignment would be approximately 100 linear feet. The project would also include a new guardhouse of approximately 1,500 square feet.
- Military Family Housing Project. Under this project, LRAFB plans to enter into a real estate transaction with a private management entity to upgrade military family housing on base. It is anticipated that 1,021 housing units would be renovated or replaced within nine years of contract implementation. This contract has not yet been let.
- Construction of Airmen Dining Facility. A new facility would be constructed to replace the inadequately sized and configured dining facility. The new facility would be approximately 18,000 square feet.
- Construction of Child Development Center. The Child Development Center would provide an indoor facility and an outdoor activity area. The building would be approximately 18,000 square feet.
- Construction of an Education Center Complex. This complex would include 2 facilities totaling approximately 100,000 square feet on two sites at LRAFB. One building would support C-130 maintenance training, while the other facility would support general educational requirements of the military.

LRAFB and the local community update facilities on a continual basis, as necessary. These planned activities have the potential to generate environmental impacts that could exacerbate impacts associated with the proposal described in this DOPAA unless projects are planned and implemented with consideration for this potential. Each of the federal actions listed above either have been or will be the subject of subsequent NEPA analysis, which will evaluate the existing environment at the time of each proposal. The existing environment described in each of those subsequent NEPA documents will include the actions of this proposal.

## **2.8 SUMMARY OF IMPACTS**

Potential impacts resulting from the Proposed Action, the Alternative Action, and the No Action are summarized in Table 2.8-1.

**Table 2.8-1. Summary of Potential Impacts  
(Page 1 of 7)**

<i>Resource Area</i>	<i>Proposed Action</i>	<i>Alternative Action</i>	<i>No Action</i>
Earth Resources	It is estimated that approximately 2.75 acres would be temporarily disturbed as a result of construction activities, and grading of the 4WD confidence course, and that of that acreage, 0.75 acres would become impervious as a result of building and pavement construction. Sedimentation ponds and well-maintained silt fences would be used to limit or eliminate soil movement, stabilize runoff, and control sedimentation during construction. Other construction BMPs would be employed to minimize the potential for erosion.	There would be no permanent facilities constructed and therefore the temporary erosion potential from construction activities would not be present. Approximately one acre would be temporarily disturbed from minor grading of the 4WD confidence course and approximately one acre would be temporarily disturbed for development of the MOUT training site and its access roadway. During development of the main tent compound, approximately two acres would be temporarily disturbed as a result of vegetation removal. Sedimentation ponds and well-maintained silt fences would be used to limit or eliminate soil movement, stabilize runoff, and control sedimentation during construction. Other construction BMPs would be employed to minimize the potential for erosion.	Under the No Action alternative, the SF RTC would not be established at LRAFB. There would be no construction associated with this proposal and no impacts to earth resources would occur.

**Table 2.8-1. Summary of Potential Impacts  
(Page 2 of 7)**

<i>Resource Area</i>	<i>Proposed Action</i>	<i>Alternative Action</i>	<i>No Action</i>
Water Resources	An additional 0.75 acres of impervious cover would result in a minor increase in storm water runoff. Any potential impacts to storm water associated with the Proposed Action would be managed through the implementation of a storm water pollution prevention plan as part of the construction permit requirements enforced by USEPA and the State of Arkansas, which would include the use of appropriate construction BMPs as described above.	There would be two acres temporarily disturbed during vegetation removal at the main compound area; however, during this period BMPs would be employed to ensure that erosion and siltation were minimized.	Under the No Action alternative, the SF RTC would not be established at LRAFB. There would be no construction associated with this proposal and no impacts to water resources would occur.
Biological Resources	An estimated 2.75 acres of land would be temporarily disturbed as a result of proposed construction and grading activities. The proposal would not be expected to have an impact on threatened or endangered flora or fauna because there are none known to occur on LRAFB. There would be no wetlands impacted by the action.	An estimated 1.0 acre would be disturbed to develop the 4WD confidence training course. Approximately 1.0 acre would be temporarily disturbed to construct the MOUT area and establish a dirt access road. Approximately 2 acres would be cleared of the existing vegetation and appropriate ground cover for the main tent compound. The proposal would not be expected to have an impact on threatened or endangered flora or fauna because there are none known to occur on LRAFB. There would be no wetlands impacted by the action.	Under the No Action alternative, the SF RTC would not be established at LRAFB. The forest and grassland plant communities would be unaffected and current wildlife use of the area would be expected to continue.

**Table 2.8-1. Summary of Potential Impacts  
(Page 3 of 7)**

<i>Resource Area</i>	<i>Proposed Action</i>	<i>Alternative Action</i>	<i>No Action</i>
Air Quality	As a result of construction activities under the proposal, annual emissions would increase during the duration of the construction and grading as follows: 1.3 tons of CO, 0.4 tons of volatile organic compounds (VOCs), 5.4 tons of NO <sub>2</sub> , 0.4 ton of particulate matter less than or equal to 10 micrometers in diameter (PM <sub>10</sub> ), and less than 0.1 ton of SO <sub>2</sub> . As a result of operational emissions after the proposal is implemented, it is expected that annual emissions would increase as follows: 0.2 tons of CO, 0.1 tons of VOCs, 0.1 tons of NO <sub>2</sub> , 2.1 tons of PM <sub>10</sub> , and <0.1 ton of SO <sub>2</sub> . This is based on full build-out of the RTC. Pulaski County is in attainment for all criteria pollutants and therefore a conformity analysis is not required. It is expected that these additional emissions would not result in any long-term impacts on the air quality of Pulaski County or of Air Quality Control Region (AQCR) 016.	Under the Alternative Action, no new buildings or pavements would be added to the training area. Therefore, construction emissions would not occur. It is expected that the operational emissions under the Alternative Action would be virtually identical to those presented under the Proposed Action. It is expected that emissions as a result of the Alternative Action would not result in any long-term impacts on the air quality of Pulaski County or AQCR 016.	Under the No Action Alternative, no construction or new operational emissions would occur and the Base's emissions would be identical to current baseline emissions.

**Table 2.8-1. Summary of Potential Impacts  
(Page 4 of 7)**

<i>Resource Area</i>	<i>Proposed Action</i>	<i>Alternative Action</i>	<i>No Action</i>
Land Use/Visual Resources	Proposed activities are not incongruous with land use in this portion of LRAFB. None of the proposed activities would cause a change in the governing land use plan. Activities proposed would not deleteriously affect land use patterns or visual resources on base	Activities would occur in an area where military training activities and cleared areas are common and are an intended component of the use of these training areas. Any potential impacts to land uses and visual resources associated with this alternative would be approximately the same as those described under the Proposed Action.	Under the No Action alternative, the SF RTC would not be established at LRAFB, and land use would remain as it is currently. Additionally, there would be no alteration to the visual character of the area.
Socioeconomics and Environmental Justice	There would be no population changes within the region of influence, substantial expenditures, or major infrastructure changes as a result of establishing the RTC at LRAFB. Consequently, no socioeconomic impacts would be associated with implementation of the Proposed Action. Because there are no impacts anticipated as a result of this alternative, there would be no potential to disproportionately impact low-income or minority populations.	Impacts as a result of the Alternative Action would be expected to be similar to the Proposed Action.	Under the No Action alternative, the SF RTC would not be developed at LRAFB. None of the proposed construction would occur, and no permanent cadre of instructors would be established at LRAFB. No socioeconomic impacts would be expected under this alternative.



**Table 2.8-1. Summary of Potential Impacts  
(Page 5 of 7)**

<i><b>Resource Area</b></i>	<i><b>Proposed Action</b></i>	<i><b>Alternative Action</b></i>	<i><b>No Action</b></i>
Solid and Hazardous Materials and Waste	During construction activities, diesel fuel would be stored to fuel construction equipment. The fuel would be stored within portable containment basins to manage any potential spills during construction activities. There are no IRP sites located within any of the proposed construction sites. Construction and demolition activities would not be expected to generate hazardous or petroleum wastes. Approximately 62 tons of solid wastes would be generated as a result of construction activities. This would have a negligible impact on the local landfill.	Under this alternative, permanent RTC facilities would not be constructed. An increase in the use of petroleum products would occur resulting from the operation of portable electric generators in the training area. IRP sites would not be impacted by the RTC. Solid waste generation would be expected to be the same as under the Proposed Action	Under this alternative, there would be no change to the current operations at LRAFB. Therefore, conditions related to solid and hazardous materials and wastes within the ROI would remain at baseline conditions.

**Table 2.8-1. Summary of Potential Impacts  
(Page 6 of 7)**

<i>Resource Area</i>	<i>Proposed Action</i>	<i>Alternative Action</i>	<i>No Action</i>
Cultural Resources	<p>Although 12 archaeological sites have been identified in or near the proposed SF RTC parcels, 11 of them have been determined ineligible for listing in the NRHP (Cliff et al. 1997) and would not be adversely impacted. Site 3PU450, a possible cemetery location, is unevaluated. This site is located along the boundary of the Proposed Action area where no construction or earthmoving is planned, and would be avoided. Consultation with the SHPO has indicated that no known historic properties would be affected by this undertaking (personal communication, McCluskey 2004). In the unlikely event that archaeological resources are encountered during earthmoving, per Section 2.1 of AFI 32-7065, <i>Cultural Resources Management</i>, work would stop at that location and the resources would be managed in compliance with Section 106 of the NHPA. There are no known federally-recognized Native American lands or resources within the location of the proposal, and the action is not considered to have the potential to affect Native American lands, treaty rights, or other tribal interests.</p>	<p>Impacts to cultural resources are not expected as a result of the Alternative Action. The four archaeological resources within the Alternative Action location have all been determined ineligible for listing in the NRHP. No historic buildings or traditional resources would be impacted under the Alternative Action.</p>	<p>No impacts to cultural resources are expected under the No Action alternative. The resources would continue to be managed in compliance with Federal law and USAF regulation. Cultural resources would remain at baseline conditions.</p>

**Table 2.8-1. Summary of Potential Impacts  
(Page 7 of 7)**

<i>Resource Area</i>	<i>Proposed Action</i>	<i>Alternative Action</i>	<i>No Action</i>
Safety	During normal construction activities, catastrophic accidents are rare. Strict adherence to all applicable occupational safety requirements would minimize the relatively low risk associated with these activities.	Impacts under this alternative would be expected to be similar to those under the Proposed Action.	No impacts would be expected under the No Action alternative.
Infrastructure	Minor short-term disruptions in utility services, associated with construction at the main RTC camp may occur; however, these would be localized and of short duration. A throughput of up to 2,880 trainees annually is not expected to stress any utility system at LRAFB.	Under this alternative, permanent RTC facilities would not be constructed. Electrical power would be provided by mobile electrical generators. Portable sanitary facilities would be provided and wastewaters generated would be disposed by the contractor providing the temporary facilities. Impacts with regard to solid waste and potable water, would be similar as under the Proposed Action. Impacts to transportation would be similar to those described for the Proposed Action.	No impacts would be anticipated to utilities or transportation facilities under the No Action alternative.

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## **3.0 EXISTING CONDITIONS**

Chapter 3.0 describes the existing environmental and socioeconomic conditions likely to be affected by the Proposed Action. The potential environmental and socioeconomic impacts of implementing the Proposed Action or its alternative are described in Chapter 4.0.

In compliance with NEPA, CEQ guidelines, and AFI 32-7061, the description of the affected environment focuses on those resources and conditions potentially subject to impacts. These resources and conditions include: earth resources, water resources, biological resources, air quality, land use and visual resources, socioeconomics and environmental justice, cultural resources, safety, infrastructure, and solid and hazardous materials and wastes.

### **3.1 EARTH RESOURCES**

#### **3.1.1 DEFINITION OF THE RESOURCE**

Earth resources include topography, geology, and soils. Geologic resources of an area typically consist of surface and subsurface materials and their inherent properties. The term soils refers to unconsolidated materials formed from the underlying bedrock or other parent material. Soils play a critical role in both the natural and human environment. Soil drainage, texture, strength, shrink-swell potential, and erodibility all determine the suitability of the ground to support man-made structures and facilities.

These resources may have scientific, historical, economic, and recreational value. The ROI for geology and soils includes the area immediately underlying the proposed and alternative SF RTC sites at LRAFB.

#### **3.1.2 EXISTING CONDITIONS**

##### **3.1.2.1 Geology**

The state of Arkansas is divided into several very distinct physiographic regions. A southwest to northeast diagonal line divides the state into the Ozark/Ouachita highlands and the Mississippi Alluvial Plain/Gulf Coastal Plain. The highland regions are further divided by the Arkansas River Valley, which follows the flow of the Arkansas River through the highland regions.

LRAFB lies on the diagonal transition between the Ouachita highlands and the lowlands. The rock formations in the highland area are dominated by well-lithified sandstones, shales, limestones, and dolostones of Paleozoic age. A thin drape of younger unconsolidated clays, sands, and gravel (alluvium), is often found in valley floors and associated with the streams and rivers. The sedimentary deposits of the lowlands are mainly unconsolidated clay, sand, and

gravel of Quaternary age, poorly consolidated deposits of clay, sand, silt, limestone, and lignite of Tertiary age, and consolidated deposits of Cretaceous marl, chalk, limestone, sand, and gravel (United States Department of Agriculture [USDA] 1975, Natural Resources Conservation Service 2002).

The proposed site for the SF RTC is divided by a thrust fault that runs east to west. The northern portion of the site is located on bedrock of the Middle Atoka Formation, and is composed of shale and sandstone. The area south of the thrust fault is located on bedrock of the Lower Atoka Formation and is also composed of sandstone and shale. The thrust fault in this area is not considered to be active (Arkansas Geological Commission 2004).

The alternative site for the SF RTC is located on Pennsylvanian bedrock of the Lower Atoka Formation. This formation is composed of black shale and sandstone. There is a thrust fault that runs east to west through the northern portion of the alternative site. This fault is not considered to be active (Arkansas Geological Commission 2004).

#### 3.1.2.2 Soils

Soils in the LRAFB area of Pulaski County are generally formed in weathered material from acid sandstone and shale, and in valley fill from local highlands. Two soil associations are identified on the base. The northern half of the base is predominantly the Leadvale-Guthrie-Linker association; the Linker-Mountainburg association occurs in the southern half of the base. Most of the improved and some of the semi-improved portions of the base are classified as Urban Land or Urban Land complexes of several soil series. Urban Land is either significantly covered by works and structures or has been so altered during construction that separate classification is impractical.

There are seven major soil series identified as originally occurring on LRAFB. In general, these soils are acidic and over much of the base are shallow and well drained (USDA 1975).

The *Amy* soil series is comprised of silt loam and is located in broad upland flats and on flood plains of local drainage ways. This soil series is deep, poorly drained with a high seasonal water table, and generally presents severe limitations for construction. *Amy* soils are present in the eastern portions of the base (USDA 1975).

The *Guthrie* soil series is comprised of level, poorly drained silt loam on stream terraces and in depressions on the top of mountains. This soil series is deep and poorly drained, with a high seasonal water table and severe construction limitations. The *Guthrie* series is present in northern and eastern portions of the base (USDA 1975).

The *Leadvale* series is comprised of nearly level and gently sloping silt loam in valleys and on the top of low mountains. This series is suitable for most uses and occurs in the northern and southeastern portions of the base (USDA 1975).

The *Linker* soil series consists of well drained, gently sloping to moderately steep soils on the top and sides of mountains, on benches and on low ridges in valleys. The series is composed of fine sandy loam in the upper layers and clay loam in the deeper layers. The depth to bedrock is about 30 inches. The shallow depth to bedrock of this series presents a moderate construction constraint. *Linker* soils are present over a large portion of the base (USDA 1975).

The *Mountainburg* soil series consists of well-drained fine sandy loam on gently to moderately steep slopes on the top and sides of mountains, on benches, and on low ridges in valleys. This series is very shallow, with an average depth to bedrock of 15 inches, presenting severe limitations to excavation. *Mountainburg* complexes are present over large portions of the base (USDA 1975).

The *Smithdale* soil series is comprised of fine sandy loam, clay loam and sandy loam. It is present in gently to moderately sloping upland areas. The soil is deep, well-drained and generally occurs in the eastern portions of the base (USDA 1975).

The *Tiak* soil series is comprised of a fine sandy loam surface layer over a deep layer of silty clay. The soil is moderately well drained and nearly level to gently sloping. *Tiak* soils are present in the southern portions of the base and present moderate to severe construction limitations due to their high clay content (USDA 1975).

The site for the proposed RTC contains seven soil mapping units, which include: *Urban*; *Linker gravelly fine sandy loam*; *Mountainburg stony fine sandy loam*; *Linker-Mountainburg association*; *Leadvale silt loam*; *Guthrie-Leadvale complex*; and *Linker-Urban land complex*. The majority of the site is composed of Urban Land, Linker-Mountainburg association, Leadvale silt loam and Guthrie-Leadvale complex. On *Urban Land* pavement or buildings cover most of the areas, and the land that is not covered by pavement has been so altered during construction activities that it is not practical to map. Soil grading has severely altered the original soils and they can no longer be classified other than as Urban soil. The *Linker-Mountainburg association* is generally found on hills with slopes between 12 and 25 percent. These soils generally show rapid runoff and high erosion potential. The *Leadvale silt loams* are generally found in valleys with slopes between one to eight percent. The erosion potential is moderate. The *Guthrie-Leadvale complex* is generally found in valleys and particularly in depressions. Slopes are between zero to three percent, and wetness can be a problem in flat areas. Erosion potential is moderate (USDA 1975).

The alternate RTC site contains six soil mapping units, which include: *Urban*; *Linker gravelly fine sandy loam*; *Mountainburg stony fine sandy loam*; *Linker-Mountainburg association*; *Guthrie-Leadvale complex*; and *Linker-Urban land complex*. The majority of the site is composed of *Linker-Mountainburg association* and *Linker gravelly fine sandy loam*. As indicated previously, the *Linker-Mountainburg association* is generally found on hills with slopes between 12 and 25 percent. The *Linker gravelly fine sandy loam* can be found in valleys and on hill slopes. Runoff is moderate and the erosion potential is high unless managed properly (USDA 1975).

#### 3.1.2.3 Topography

Most of LRAFB has rolling topography with gentle slopes. Steeper slopes occur in the stream valleys in the northwest and southwest corners of the base. Long, narrow ridges, oriented from east to west, typify the region to the north of the base. The southernmost of these ridges lies just north of the airfield (Parsons Engineering Science 1998).

The elevations on the base range from the highest point of 421 feet above mean sea level (msl) to a low of 258 feet above msl along the eastern perimeter.

### 3.2 WATER RESOURCES

#### 3.2.1 DEFINITION OF THE RESOURCE

Water resources analyzed in this EA include surface water and groundwater quantity and quality. Surface water resources comprise lakes, rivers, and streams and are important for a variety of reasons, including economic, ecological, recreational, and human health. Groundwater comprises the subsurface hydrologic resources of the physical environment and is an essential resource. Groundwater properties are often described in terms of depth to aquifer or water table, water quality, and surrounding geologic composition.

Other issues relevant to water resources include the downstream water and watershed areas affected by existing and potential runoff, and hazards associated with 100-year floodplains. Floodplains are defined by EO 11988, *Floodplain Management*, as “the lowland and relatively flat areas adjoining inland and coastal waters including flood-prone areas of offshore islands, including at a minimum, that area subject to a one percent or greater chance of flooding in any given year” (that area inundated by a 100-year flood). The values served by floodplains include natural moderation of floods, water quality maintenance, groundwater recharge, as well as habitat for many plant and animal species.



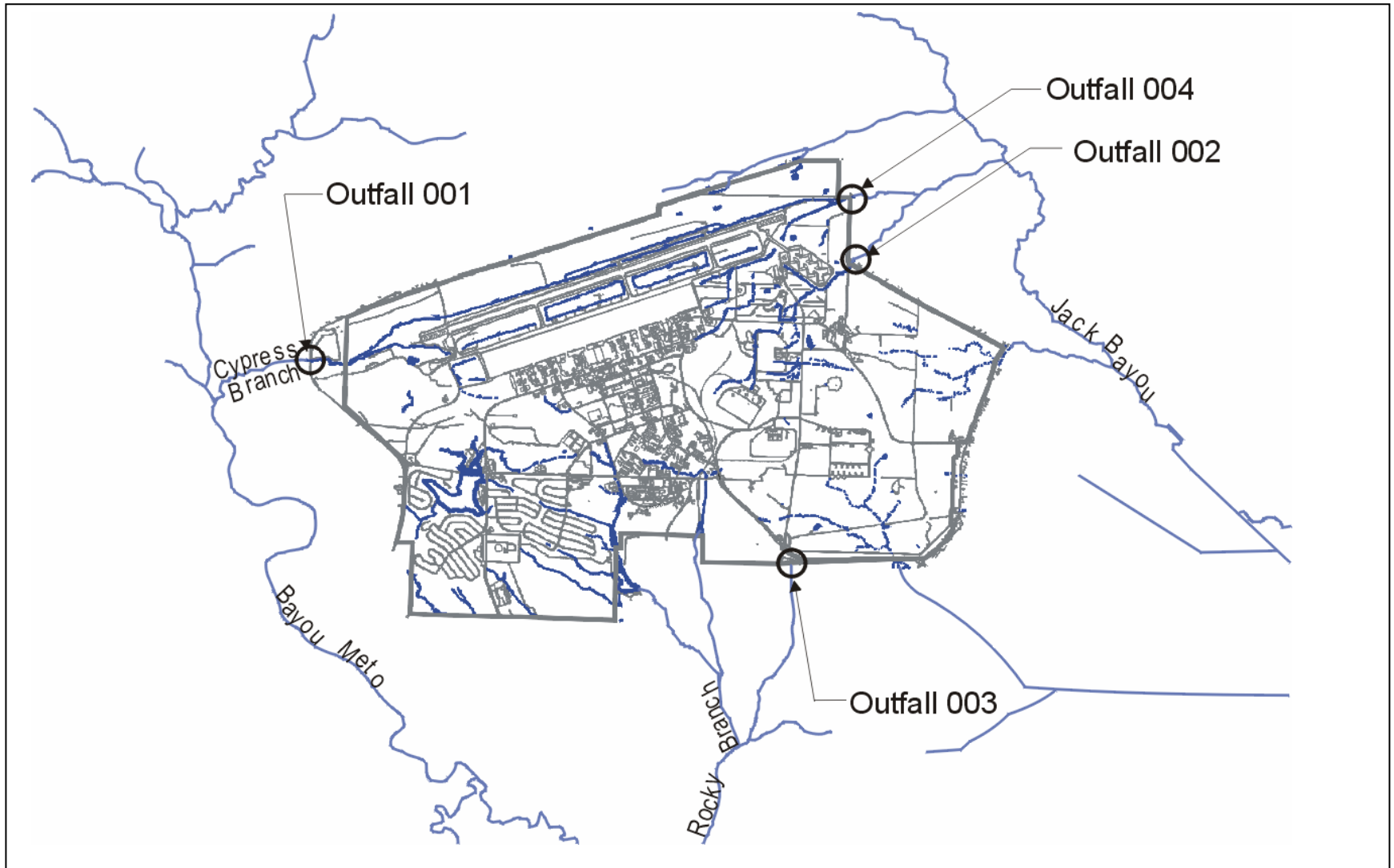
### 3.2.2 EXISTING CONDITIONS

#### 3.2.2.1 Surface Water

LRAFB lies within the Arkansas River Basin of central Arkansas and is located within the Bayou Meto drainage area. This area receives a mean annual precipitation of 48 inches per year (National Oceanic and Atmospheric Administration 2002). Drainage on LRAFB is controlled by open drainage courses and underground storm drains, and joins the area-wide drainage flowing into three secondary streams: Cypress Branch on the west, Rocky Branch on the south, and Jacks Bayou on the east. Additional unnamed secondary streams are located southwest, southeast, and northeast of the base. All streams from the base eventually flow into Bayou Meto, which flows southeast and joins the Arkansas River approximately 100 miles downstream from the base (USAF 1993). The proposed RTC site drains to the northeast toward the southeast corner of the runway and eventually to Jacks Bayou via Outfall 004.

There are a number of impoundments and open water bodies at LRAFB including Base Lake, (a 39 acre lake in the southwest corner of the base), three golf course ponds used for irrigation water (ranging from 1.1 to 2.3 acres in area), seven small ponds on the east side of the base (ranging from 0.2 to 1.2 acres), and a number of small “borrow” ponds apparently created by excavations for fill material. There is a small pond (less than one acre) in the center of the proposed 4WD confidence course. This pond would not be utilized as a part of the training course.

LRAFB is permitted to discharge storm water runoff via four discharge points into tributaries to Bayou Meto. Storm water discharges are permitted in accordance with LRAFB’s National Pollutant Discharge Elimination System (NPDES) permit and are regulated by USEPA. Water quality is monitored at these four locations (Figure 3.2-1) and may also be monitored at three inactive, alternate sites. Testing of the effluent is conducted on a monthly basis and the system is in compliance with all NPDES and Arkansas Department of Environmental Quality (ADEQ) standards (USAF 2001b). According to the Arkansas Department of Pollution Control and Ecology Commission (name has since changed to ADEQ), the nearest surface water quality stations within the drainage basin are on Bayou Meto and Bayou Two Prairie at distances of 50 to 75 miles downstream (USAF 1996).



**Figure 3.2-1**  
**Water Resources and Outfalls**  
**Little Rock AFB, Arkansas**

### 3.2.2.2 Groundwater

The base obtains all its water supply from surface water reservoirs in Little Rock. There are no water production wells on the base. Groundwater is not used for drinking, irrigating, or industrial purposes. Municipal wells for the city of Jacksonville are located approximately 4.5 miles southeast of LRAFB and reportedly take water from a deep alluvial aquifer approximately 104 to 129 feet below the surface.

The limited available information about groundwater at LRAFB is from Installation Restoration Program (IRP) monitoring wells. Generally, these wells are shallow and have low yield. Depth to the groundwater table varies across the base with depth to bedrock and season. In some locations, the bedrock is very shallow and the groundwater table occurs near the surface. At other locations, the water table is as much as 30 feet (9 meters) below the surface.

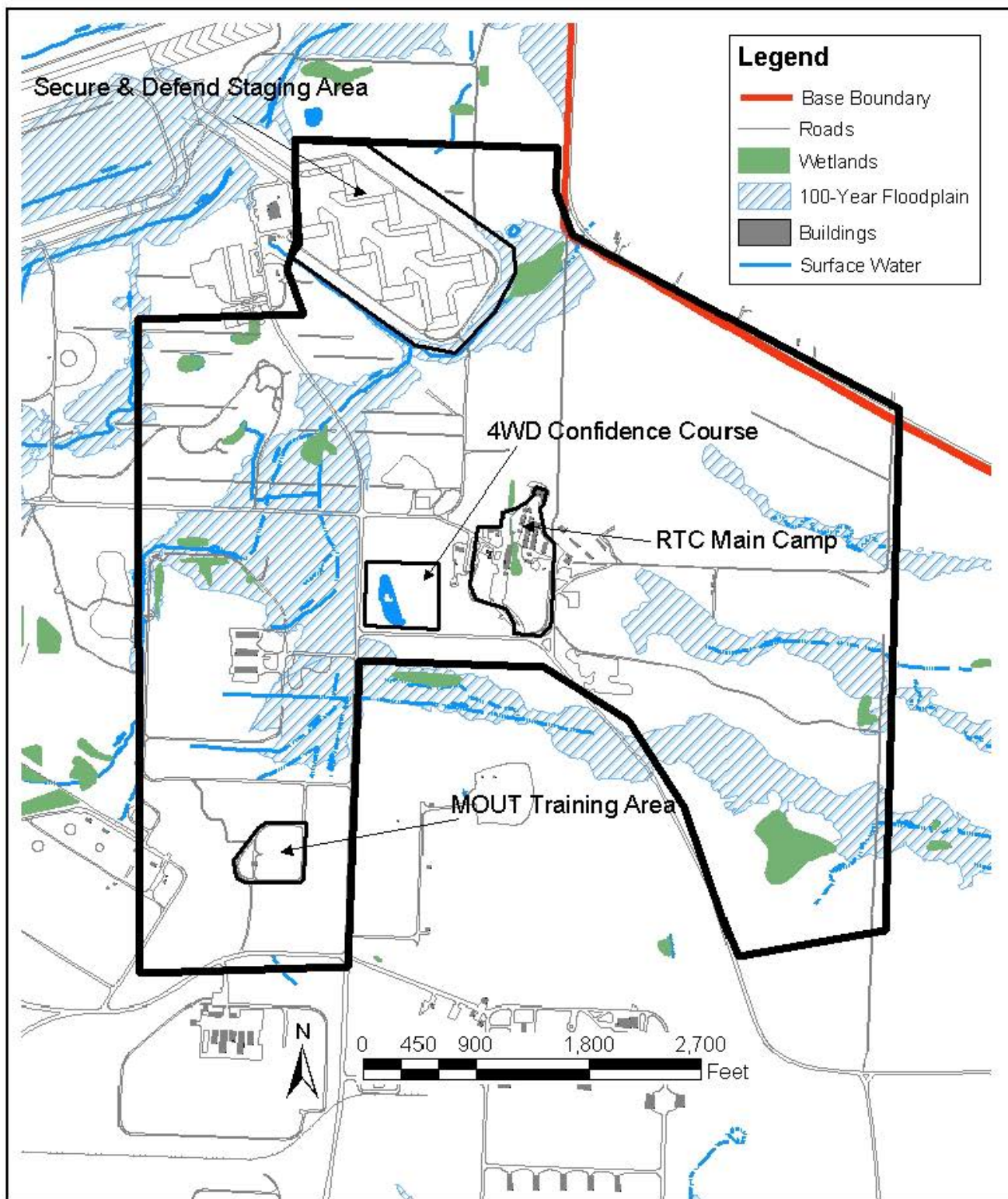
### 3.2.2.3 Floodplain

There is the potential for several areas of LRAFB to be impacted by a 100-year flood. The areas subject to flooding are primarily along the natural and man-made impoundments and drainage channels that control storm water flow on the base. A floodplain study using two-foot contours was recently completed to provide a more precise depiction of the 100-year floodplain (URS Inc. 2001). Figure 3.2-2 delineates the 100-year floodplain based on existing maps and information. The proposed 610-acre RTC site has 100-year floodplains and wetlands throughout it. There are no floodplains or wetlands in any of the locations for proposed construction or disturbance.

## 3.3 BIOLOGICAL RESOURCES

### 3.3.1 DEFINITION OF THE RESOURCE

Biological resources include native or naturalized plants and animals and the habitats, including wetlands, in which they occur. Although the existence and preservation of biological resources are intrinsically valuable, these resources also provide essential aesthetic, recreational, and socioeconomic values to society. This section focuses on plant and animal species and vegetation types that typify or are important to the function of the ecosystem, are of special societal importance, or are protected under federal or state law or statute. For purposes of this assessment, sensitive biological resources are defined as those plant and animal species listed as threatened or endangered by the USFWS and species that are considered sensitive by the state or other entities. Three categories of protection status are included in this section including 1) federal listed threatened and endangered species, 2) state listed species, and 3) other sensitive species.



**Figure 3.2-2.**  
**100-Year Floodplain and Wetlands**  
**in Vicinity of Proposed Security Forces Regional Training Center,**  
**Little Rock Air Force Base, Arkansas**

Federal Listed Threatened and Endangered Species. The ESA of 1973 provides protection to species listed under this category. Endangered species are those species that are at risk for extinction in all or a large portion of their range. Threatened species are those that could be listed as endangered in the near future.

State Listed Threatened and Endangered Species. The state-threatened and endangered species list in Arkansas is identical to the federal list for Arkansas.

Other Sensitive Species. These include federal species of concern and species listed by other agencies such as state Natural Heritage Programs. These are usually species of regional concern that are likely on the decline. These species receive no legal protection under the ESA or other statutes.

### 3.3.2 EXISTING CONDITIONS

LRAFB is near the eastern edge of the Ouachita Mountains above the Mississippi Alluvial Plain and within the Arkansas Valley and Ridges Land resources area. The undeveloped areas of LRAFB are dominated by pines and upland hardwood forests that support a diverse flora and fauna (USAF 2002a). The Proposed Action area on LRAFB contains hardwood forests, grassland plant communities, and some streams/drainages that all provide habitat for a variety of wildlife species.

#### 3.3.2.1 Vegetation

The general vegetative cover in the area is the Southern Division of the Oak-hickory Region and more specifically, the Ouachita Mountains portion of the Interior Highlands. Historically, the pine-oak forest type was the most widespread in the uplands and common tree species were shortleaf pine (*Pinus echinata*), post oak (*Quercus stellata*), blackjack oak (*Q. marilandica*), black oak (*Q. velutina*), and white oak (*Q. alba*). Common understory species were sassafras (*Sassafras albidum*), persimmon (*Diospyros virginiana*), and flowering dogwood (*Cornus florida*). More mesic areas contained mostly hardwood species including water oak (*Q. nigra*), willow oak (*Q. phellos*), black gum (*Nyssa sylvatica*), sycamore (*Platanus occidentalis*), and sweet gum (*Liquidambar styraciflua*) (USAF 2002a).

Prior to the establishment of LRAFB in 1953, much of the land that historically supported the above forest types had been cleared for agricultural purposes. As a result of the base being located at this site, forest and woodland types have become reestablished. There is currently an estimated 2,820 acres of forest and woodlands on the base and the remaining land is covered with open fields and base facilities as well as a small amount of wetlands and aquatic habitat. The largest forest community is the post oak/blackjack oak type (1,686 acres), followed by loblolly pine (*Pinus taeda*)/shortleaf pine forest (540 acres), and bottomland hardwood forest

where pin oak (*Quercus palustris*), sweet gum, and willow oak are common (590 acres). The pine stands are areas that were formerly cleared and then planted to pine while most of the remaining forest became established naturally (USAF 2002a).

The proposed SF RTC area covers approximately 610 acres (see Figure 2.4-1). The vast majority of this land is undeveloped. The developed portion includes the roughly 13 acres of Camp Warlord and the old SAC alert pad. There are a few other buildings and roadways throughout the remainder of the 609 acres, but it is largely open grassy areas and wooded areas. The open grassy areas support various species of grasses and forbs and some scattered trees such as sweet gum, eastern red cedar (*Juniperus virginiana*), and hickory (*Carya* sp.).

The wooded portion of the property is covered with a mixed aged deciduous forest dominated by lowland tree species. The canopy and understory trees and shrub layer create dense vegetation in many areas. Mature tree species include sweet gum, red maple (*Acer rubrum*), willow oak, oak sp, and ash sp (*Fraxinus* sp.). Some of these trees are approximately 55 to 65 feet tall and 18 to 30 inches diameter at breast height. There is a dense groundcover in some places, which includes greenbrier (*Smilax* sp.) and poison ivy (*Rhus radicans*).

### 3.3.2.2 Wildlife

#### *Invertebrates*

Seven species of crayfish are found on LRAFB. *Procambarus acutus* is the most abundant and widespread species, and is found in all habitat types including man made drainages. A total of 451 insect taxa have been recorded on LRAFB. Aquatic macroinvertebrates and algae have been sampled from six locations on base. Eight algal taxa and six aquatic macroinvertebrate taxa have been found in streams on base (USAF 2002a).

#### *Amphibians and Reptiles*

Thirty-eight species of amphibians and reptiles are documented from LRAFB. This relatively large number of species in a small geographic area represents favorable diversity (USAF 2002a). Thirteen species have been recorded from the mesic forests of LRAFB, including the spotted salamander (*Ambystoma maculatum*), cricket frog (*Acris crepitans*), southern leopard frog (*Rana utricularia*), fence lizard (*Sceloporus undulatus*), and hognose snake (*Heterodon platirhinos*). Species found in the grassy areas on base were limited to the three-toed box turtle (*Terrapene carolina triunguis*) and Fowler's toad (*Bufo woodhousei fowleri*) (USAF 2002a).

#### *Birds and Neotropical Migrants*

A total of 122 species of birds were detected on base during recent surveys and 37 of these have been detected in the wooded and grassland habitat similar to the project area. Base wide, 77

species were detected in the deciduous forest/woodland/oak savannah. Of these, 54 are considered breeding species with 33 being permanent residents and 21 migrating to the base to breed. Common to fairly common forest breeding permanent residents include the Red-bellied Woodpecker (*Melanerpes carolinus*), Downy Woodpecker (*Picoides pubescens*), Blue Jay (*Cyanocitta cristata*), Carolina Chickadee (*Parus carolinensis*), Tufted Titmouse (*Parus bicolor*), and Carolina Wren (*Thryothorus ludovicianus*). Common to fairly common forest and woodland breeding species that migrate to the base include the Yellow-billed Cuckoo (*Coccyzus americanus*), Great Crested Flycatcher (*Myiarchus tyrannulus*), Eastern Wood Pewee (*Contopus sordidulus*), Acadian Flycatcher (*Empidonax occidentalis*), Red-eyed Vireo (*Vireo olivaceus*), Kentucky Warbler (*Oporornis formosus*), and Summer Tanager (*Piranga rubra*) (USAF 2002a). Twenty-four species were recorded in grassland habitats on LRAFB and fairly common to common breeding species included the Eastern Kingbird (*Tyrannus tyrannus*), Field Sparrow (*Spizella pusilla*), and Eastern Meadowlark (*Sturnella magna*) (USAF 2002a).

The primary game bird species on base are the Wild Turkey (*Meleagris gallopavo*) and Bobwhite Quail (*Colinus virginianus*). There are no density estimates although both are considered uncommon on the base and both could occur in the project area. There are about 5,000 acres of Wild Turkey and 500 acres of Bobwhite Quail habitat on base (USAF 2002a).

Bird species that breed in temperate North America and winter in the tropics are referred to as neotropical migrants and have become the focal point of much ornithological research, management, and conservation concern (Hagan and Johnston 1992; Finch and Stangel 1993). Forest fragmentation on the breeding grounds and the elimination of optimum wintering habitat in the tropics are likely the two major reasons for these declines (Flather and Sauer 1996; Sheery and Holmes 1996). In addition, the loss of important stopover habitat used during migration may affect the survival of neotropical migrants (Moore et al. 1993).

An estimated 110 neotropical migrant land birds occur in the midwestern U.S. and 48 (44 percent) of these species have been reported from LRAFB (Thompson et al. 1993; USAF 2002a). A total of 28 neotropical migrants on base inhabit the forested and woodland plant communities and of these, 20 are nesting species and eight are only seen during migration.

LRAFB occurs in the Ozark-Ouachita Highlands Region and an analysis of population trends of forest birds in this region showed that four species of neotropical land birds were declining and seven were possibly declining (Hunter et al. 1993). The Acadian flycatcher was the only declining species reported from LRAFB and this species is considered fairly common on base. The Eastern Wood Pewee, Great Crested Flycatcher, Louisiana Waterthrush (*Seiurus motacilla*), and Scarlet Tanager (*Piranga olivacea*) were species that may be on the decline that were reported from LRAFB. The Eastern Wood Pewee and Great Crested Flycatcher are considered

fairly common on base while the Louisiana Waterthrush is uncommon and the Scarlet Tanager is an occasional visitor (USAF 2002a).

Another species that has been declining but not included in the above study is the Kentucky Warbler (Partners in Flight [PIF] 2002; National Audubon Society [NAS] 2002). Data from the Breeding Bird Survey indicates that all six of these species have declined in Arkansas for the period 1966 to 2000 (Table 3.3-1).

**Table 3.3-1. Population Trends for Arkansas (recent change per year) for Six Neotropical Migrant Land Birds that Breed in the Forest Habitat on Little Rock AFB**

<i>Species</i>	<i>Relative abundance on Little Rock AFB<sup>1</sup></i>	TRENDS (% CHANGE/YEAR)		
		<i>1966-2000</i>	<i>1966-1979</i>	<i>1980-2000</i>
Eastern Wood Pewee	F	-2.3	-6.8	-0.1
Acadian Flycatcher	F	-2.3	-4.2	-1.2
Great Crested Flycatcher	F	-2.0	-3.1	-0.1
Kentucky Warbler	F	-2.8	-1.4	-4.0
Louisiana Waterthrush	U	-2.5	+1.5	-3.7
Scarlet Tanager	O	-0.4	+2.6	-1.6

Note: Relative abundance categories from breeding bird surveys on Little Rock AFB are based on the frequency and number seen during each survey. F = fairly common (usually found every visit and generally in low numbers), U = uncommon (usually present in suitable habitat and season but not likely detected on every visit, O = occasional (not always present, likely detected 2 to 5 times per year in suitable habitat).

Sources: Sauer et al. 2001, USAF 2002a

### *Mammals*

Fifty-three species of mammals occur in Pulaski County and many of these occur on LRAFB. Nine species of small mammals were identified during sampling in various habitats on base and the cotton mouse (*Peromyscus gossypinus*) and deer mouse (*P. maniculatus*) were the two most common species. The cutover woods had the greatest diversity of species while the greatest densities of mammals were found in the young pine plantations (USAF 2002a). Five species of bats were observed and the red bat (*Lasiurus borealis*) and evening bat (*Nycticeius humeralis*) were the most commonly encountered species. Most of the bat species use a variety of habitats from grasslands to forests for foraging (USAF 2002a).

The white-tailed deer (*Odocoileus virginianus*) is the principal game species on the base. Other less important mammal game species include the eastern cottontail rabbit (*Sylvilagus floridanus*), fox squirrel (*Sciurus niger*), and gray squirrel (*S. carolinensis*). There are an estimated 5,000



acres of white-tailed deer habitat on the base. This habitat is rated as good for deer. Deer density ranged from one deer per 10 acres in 1995 to one deer per 23 acres in 2000 (USAF 2002a).

### 3.3.2.3 Threatened, Endangered and Other Sensitive Species

A list of federally threatened and endangered species that have the potential to occur in Pulaski County is shown in Table 3.3-2. Most of these species are not known to occur on LRAFB. The Bald Eagle (*Haliaeetus leucocephalus*) is the only species on this list that has been observed on base when an immature eagle was seen flying over in the fall of 1998. Future occurrences of this species in the area of LRAFB will likely be limited to very sporadic flyovers such as occurred in 1998 (USAF 2002a).

**Table 3.3-2. Federally Listed Species That Have the Potential to Occur in the Area of Little Rock AFB**

<i>Species</i>	<i>Status<sup>1</sup></i>	<i>Comments</i>
<b>Fish</b>		
Leopard darter <i>Percina pantheria</i>	T	Not found in any aquatic habitat on base (USAF 2002a).
<b>Birds</b>		
Bachman's Warbler <i>Vermivora bachmanii</i>	E	Not detected on the base during bird surveys (USAF 2002a) and would not occur on base.
Bald Eagle <i>Haliaeetus leucocephalus</i>	T	An immature bald eagle observed flying over the base in the fall of 1998 (USAF 2002a). May occur very sporadically flying over the base.
Ivory-billed Woodpecker <i>Campephilus principalis</i>	E	Likely extinct.
Red-cockaded Woodpecker <i>Picoides borealis</i>	E	Not detected on the base and very unlikely to occur because habitat was judged to be unsuitable due the forest composition (mostly oak), its age structure (too few old pines), and physical structure (too much undergrowth) (USAF 1995).
<b>Mammals</b>		
Indiana bat <i>Myotis sodalis</i>	E	Not detected on base during bat surveys. Should not occur on base due to the lack of suitable habitat (USAF 2002a).

Note: 1. T = threatened, E = endangered  
Source: USAF 2002a

Ten non-federally listed sensitive species have been detected on LRAFB. Two sensitive species of invertebrates were detected during insect sampling on LRAFB including the Eryngium borer moth (*Papaipema eryngii*) found only in the mesic prairie on base and the Diana fritillary butterfly (*Speyeria diana*) also found in this prairie as well as mesic oak/hickory forest. The alligator snapping turtle (*Macroclemys temminckii*) was found in one stream on base and may occur in other aquatic habitats on base (USAF 2002a).

The remaining eight sensitive species are birds and are being monitored by the Arkansas Natural Heritage Commission, PIF, or are on the NAS Watchlist (NAS 2002, PIF 2002). The Grasshopper Sparrow (*Ammodramus savannarum*) has been observed only during migration while the Red-shouldered Hawk (*Buteo lineatus*) has been observed in the forest habitat on base but is not believed to be a breeding species. The Field Sparrow is considered a fairly common permanent resident at LRAFB and is undergoing declines in the Ozark and Ouachitas physiographic region (PIF 2002). This species could occur in the grassland habitat in the project area. The Dickcissel (*Spiza americana*) is an uncommon migrant and breeding species in grassland habitat on base and could occur in the project area. The Prairie Warbler (*Dendroica discolor*) and Painted Bunting (*Passerina versicolor*) are occasional migrant and breeding species in shrub habitat on LRAFB and could occur in the project area. The Kentucky Warbler and Louisiana Waterthrush occur primarily in wet woods and are considered fairly common and uncommon, respectively, on base and could occur in the floodplain woods in the project area (USAF 2002a).

#### 3.3.2.4 Wetlands

Wetlands were described and mapped on LRAFB during a 1996-97 wetlands study (USAF 1997). Wetland delineations followed the USACE 1987 wetlands delineation manual (Environmental Laboratory 1987). This study expanded on a wetlands study conducted on LRAFB in 1993 (Woolpert Consultants 1993). According to these data, there are a total of approximately 51 wetland sites covering 145 acres, that have the potential to be considered USACE jurisdictional wetlands on LRAFB (USAF 1997; USAF 2002a; personal communication, Popham 2002-03). There are no wetlands in the portions of the project area that would be developed (Camp Warlord, MOUT, 4WD confidence course) (Figure 3.2-2).

### 3.4 AIR QUALITY

This section discusses air quality considerations and conditions in the area around LRAFB in Pulaski County, Arkansas. It addresses air quality standards and describes current air quality conditions in the region.

### 3.4.1 DEFINITION OF THE RESOURCE

**Federal Air Quality Standards.** Air quality is determined by the type and concentration of pollutants in the atmosphere, the size and topography of the air basin, and local and regional meteorological influences. The significance of a pollutant concentration in a region or geographical area is determined by comparing it to federal and/or state ambient air quality standards. Under the authority of the CAA, the USEPA has established nationwide air quality standards to protect public health and welfare, with an adequate margin of safety. These federal standards, known as the NAAQS, represent the maximum allowable atmospheric concentrations and were developed for six “criteria” pollutants: O<sub>3</sub>, NO<sub>2</sub>, CO, PM<sub>10</sub>, SO<sub>2</sub>, and Pb.. Table 3.4-1 summarizes the federal standards associated with criteria pollutants.

The USEPA designates areas of the U.S. as having air quality equal to or better than the NAAQS (attainment) or worse than the NAAQS (nonattainment). Nonattainment areas that achieve attainment are redesignated as maintenance areas for a period of 10 or more years. Areas are designated as unclassifiable for a pollutant when there is insufficient ambient air quality data for the USEPA to form a basis of attainment status. For the purpose of applying air quality regulations, unclassifiable areas are treated similar to areas that are in attainment of the NAAQS.

The NAAQS are defined in terms of concentration (e.g., parts per million [ppm] or micrograms per cubic meter [ $\mu\text{g}/\text{m}^3$ ]) determined over various periods of time (averaging periods). Short-term standards (1-hour, 8-hour, or 24-hour periods) were established by the USEPA for pollutants with acute health effects and may not be exceeded more than once a year. Long-term standards (annual periods) were established by the USEPA for pollutants with chronic health effects and may never be exceeded.

In 1997, the USEPA promulgated two new standards: a new 8-hour O<sub>3</sub> standard (which will eventually replace the existing 1-hour O<sub>3</sub> standard) and a new standard for particulate matter less than 2.5 micrometers in diameter (PM<sub>2.5</sub>), which are fine particulates that have not been previously regulated. In addition, the USEPA revised the existing PM<sub>10</sub> standard. The two new standards are scheduled for implementation over the next few years, as monitoring data becomes available to determine the attainment status of areas in the U.S. Meanwhile, the USEPA will enforce the existing 1-hour O<sub>3</sub> standard for areas that are still in nonattainment of the standard.

**State Air Quality Standards.** Under the CAA, state and local agencies may establish ambient air quality standards and regulations of their own, provided these are at least as stringent as the federal requirements. The Proposed Action would involve construction, renovation, and demolition projects within Pulaski County, Arkansas. For the criteria pollutants of concern, Arkansas’ standards are the same as the federal standards.

**State Implementation Plan.** The CAA of 1977 set provisions for the attainment and maintenance of the NAAQS. For non-attainment regions, the states are required to establish a SIP designed to eliminate or reduce the severity and number of NAAQS violations, with an underlying goal to bring state air quality conditions into (and maintain) compliance with the NAAQS by specific deadlines. This plan is to be prepared by local agencies and incorporated into the overall SIP of each state.

The Clean Air Act Amendments (CAAA) of 1990 established new federal nonattainment classifications, new emission control requirements, and new compliance dates for nonattainment areas. The requirements and compliance dates are based on the severity of nonattainment classification.

**Prevention of Significant Deterioration.** Section 162 of the CAA further established the goal of prevention of significant deterioration (PSD) of air quality in all international parks; national parks which exceeded 6,000 acres; and national wilderness areas which exceeded 5,000 acres if these areas were in existence on August 7, 1977. These areas were defined as mandatory Class I areas, while all other attainment or unclassifiable areas were defined as Class II areas. Under CAA Section 164, states or tribal nations, in addition to the federal government, have the authority to redesignate certain areas as (non-mandatory) PSD Class I areas, i.e., a National Park or national wilderness area established after August 7, 1977, which exceeds 10,000 acres. PSD Class I areas are areas where any appreciable deterioration of air quality is considered significant. Class II areas are those where moderate, well-controlled growth could be permitted.

Class III areas are those designated by the governor of a state as requiring less protection than Class II areas. No Class III areas have yet been so designated. The PSD requirements affect construction of new major stationary sources in the PSD Class I, II, and III areas and are a pre-construction permitting system.

**Visibility.** CAA Section 169A established the additional goal of prevention of further visibility impairment in the PSD Class I areas. Visibility impairment is defined as a reduction in the visual range and atmospheric discoloration. Determination of the significance of an activity on visibility in a PSD Class I area is typically associated with evaluation of stationary source contributions. The USEPA is implementing a Regional Haze rule for PSD Class I areas that will address contributions from mobile sources and pollution transported from other states or regions. Emission levels are used to qualitatively assess potential impairment to visibility in PSD Class I areas. Decreased visibility may potentially result from elevated concentrations of PM<sub>10</sub> and SO<sub>2</sub> in the lower atmosphere.

**Table 3.4-1. National Ambient Air Quality Standards**

<i><b>Air Pollutant</b></i>	<i><b>Averaging Time</b></i>	<i><b>Federal NAAQS</b></i>	
		<i><b>Primary</b></i>	<i><b>Secondary</b></i>
Carbon Monoxide (CO)	8-Hour 1-Hour	9 ppm 35 ppm	-- --
Nitrogen Dioxide (NO <sub>2</sub> )	AAM 24-Hour	0.053 ppm --	0.053 ppm --
Sulfur Dioxide (SO <sub>2</sub> )	AAM 24-Hour 3-Hour	0.03 ppm 0.14 ppm --	-- -- 0.5 ppm
Particulate Matter (PM <sub>10</sub> )	AAM 24-Hour	50 µg/m <sup>3</sup> 150 µg/m <sup>3</sup>	50 µg/m <sup>3</sup> 150 µg/m <sup>3</sup>
Particulate Matter (PM <sub>2.5</sub> ) <sup>(a)</sup>	AAM 24-Hour	15 µg/m <sup>3</sup> 65 µg/m <sup>3</sup>	15 µg/m <sup>3</sup> 65 µg/m <sup>3</sup>
Ozone (O <sub>3</sub> ) <sup>(b)</sup>	1-Hour 8-Hour	0.12 ppm 0.08 ppm	0.12 ppm --
Lead (Pb) and Lead Compounds	Calendar Quarter	1.5 µg/m <sup>3</sup>	1.5 µg/m <sup>3</sup>
<p>Notes: AAM = Annual Arithmetic Mean  ppm = Parts per Million  µg/m<sup>3</sup> = micrograms per cubic meter</p> <p>(a) The PM<sub>2.5</sub> standard (particulate matter with a 2.5 micron diameter) was promulgated in 1997, and will be implemented over an extended time frame. Areas will not be designated as in attainment or nonattainment of the PM 2.5 standard until the 2002 – 2005 timeframe.</p> <p>(b) The 8-hour Ozone standard was promulgated in 1997, and will eventually replace the 1-hour standard. The USEPA plans to implement this standard beginning in 2004. During the interim, the 1-hour ozone standard will continue to apply to areas not attaining it.</p> <p>Source: 40 CFR Part 50; ADEQ Regulation 19, Chapter 3</p>			

**General Conformity.** CAA Section 176(c), General Conformity, established certain statutory requirements for federal agencies with proposed federal activities to demonstrate conformity of the proposed activities with the state's SIP for attainment of the NAAQS. In 1993, the USEPA issued the final rules for determining air quality conformity. Federal activities must not:

- a) cause or contribute to any new violation;
- b) increase the frequency or severity of any existing violation; or
- c) delay timely attainment of any standard, interim emission reductions, or milestones in conformity to a SIP's purpose of eliminating or reducing the severity and number of NAAQS violations or achieving attainment of NAAQS.

General conformity applies only to nonattainment and maintenance areas. If the emissions from a federal action proposed in a nonattainment area exceed annual thresholds identified in the rule, a conformity determination is required of that action. Conformity does not apply to Little Rock AFB because it is in an attainment area. The thresholds become more restrictive as the severity of the nonattainment status of the region increases.

**Stationary Sources Operating Permits.** Title V of the CAAA of 1990 also requires states to issue Federal Operating Permits for major stationary sources. Under the Arkansas Air Pollution Control Code (Regulation #18) and the Arkansas Plan of Implementation of Air Pollution Control (Regulation #19), a major stationary source in Pulaski County is a source as defined in 40 CFR Part 70.2. The purpose of the permitting rule is to establish regulatory control over large, industrial-type activities and to monitor their impact upon air quality.

### 3.4.2 EXISTING CONDITIONS

#### 3.4.2.1 Climate

LRAFB is located in central Arkansas, between the Ouachita Mountains to the west and the flat lowlands to the east. The climate in Pulaski County is described as subtropical humid continental, which is characterized by long, hot, and humid summers and mild winters. Factors influencing Pulaski County's weather patterns include moist air masses from the Gulf of Mexico and cool northern winds from the continental plains to the north.

The average summer temperature is 82 degrees Fahrenheit (°F) with average highs in the nineties and lows in the seventies. Daily high temperatures greater than 100° F occur frequently. Winters are generally mild with an average temperature of 40°F, average highs in the high forties

and lows around freezing. Low temperatures of 10°F are not uncommon during arctic outbreaks in January. The average growing season, with temperatures above freezing, is about 233 days.

Precipitation is well distributed throughout the year, with average annual precipitation of 49.2 inches per year and an average of 104 days per year with some form of precipitation. April has the highest average precipitation at 5.3 inches per year; August has the lowest at 3.2 inches per year. Thunderstorms are common, occurring an average of eight days per month from April through August. Snow is rare, with an average amount of 5.4 inches per year.

#### 3.4.2.2 Regional Air Quality

LRAFB is located in the northeastern portion of Pulaski County, in central Arkansas. Pulaski County, according to 40 CFR 81.138, is part of the Central Arkansas Intrastate AQCR (AQCR Number 016). A review of Federally published attainment status for Arkansas in 40 CFR 81.304 indicated that this region is designated as attainment or meeting national standards for all criteria pollutants, including CO, NO<sub>2</sub>, SO<sub>2</sub>, PM<sub>10</sub>, O<sub>3</sub>, and Pb. Based on recent monitoring data, the ADEQ expects Pulaski County to be designated as a nonattainment area for the new 8-hour ozone standard when the USEPA makes its designations, which is expected to occur in 2004.

Mandatory PSD Class I areas established under the CAAA of 1977 for the state of Arkansas are listed in 40 CFR 81.404. These are areas where visibility has been determined to be an important issue by the Administrator, in consultation with the Secretary of the Interior. According to the USEPA, sulfates and nitrates from utility and industrial boilers are the main pollutants of concern in Arkansas forests (USEPA 2002). The nearest mandatory PSD Class I areas to the region potentially affected by the action alternative are:

- Caney Creek Wilderness, located in Polk County, Arkansas. This 14,460-acre area is managed by the U.S. Forest Service and is located approximately 100 miles west of LRAFB.
- Upper Buffalo Wilderness, located in Newton County, Arkansas. This 12,018-acre area is managed by the U.S. Forest Service and is located approximately 80 miles northwest of LRAFB.

#### 3.4.2.3 Current Air Emissions

Air emissions at LRAFB are from mobile and stationary sources. The mobile sources include aircraft operations, ground support equipment, and motor vehicles. Stationary source include external combustion, fuel dispensing operations, internal combustion engines, jet engine testing, painting, and underground storage tanks. Storage tanks and fuel dispensing operations dominate air emissions from stationary sources at LRAFB. The Base has a Minor Source Air Permit from

the ADEQ in accordance with the Regulations of the Arkansas Operating Air Permit Program (Regulations 18 and 19). Table 3.4-2 summarizes the results of a stationary source emissions inventory for calendar year 2001. No inventory of mobile source emissions is available at this time.

**Table 3.4-2. Little Rock AFB Stationary Source Emissions CY 2001**

<i>Pollutants (In Tons per Year)</i>				
<i>CO</i>	<i>SO<sub>2</sub></i>	<i>NO<sub>2</sub></i>	<i>PM<sub>10</sub></i>	<i>VOC</i>
6.1	0.3	14.3	1.2	40.6

Source: CY2001 Air Emissions Inventory, LRAFB (Excel spreadsheet)

At this time, no stationary sources other than external combustion boilers and heaters are present in the existing buildings at Camp Warlord. The boiler in Building 1377 has an input capacity rating of 1,800,000 British thermal units per hour (Btu/hr) and is included in the Base's *ADEQ Minor Source Air Permit, Permit Number 865-AR-4* (ADEQ 2003) as Source Number 46, with specific allowable emission limits for criteria pollutants and opacity. Two small natural gas-fired heaters (a 15,000 Btu/hr unit in Building 1427 and a 350,000-Btu/hr unit in Building 377) are listed in the permit as insignificant sources. Based on the total number of air emission sources at LRAFB (i.e., a total of 61 "significant boilers"), then the emissions from these three external combustion sources are estimated to be insignificant (less than 1 percent) compared to the totals in Table 3.4-2.

No buildings or stationary air emission sources are currently present at the site of the Alternative Action.

### **3.5 LAND USE AND VISUAL RESOURCES**

#### **3.5.1 DEFINITION OF THE RESOURCE**

Land use comprises natural conditions or human-modified activities occurring at a particular location. Human-modified land use categories include residential, commercial, industrial, transportation, communications and utilities, agricultural, institutional, recreational, and other developed use areas. Management plans and zoning regulations determine the type and extent of land use allowable in specific areas and are often intended to protect specially designated or environmentally sensitive areas.

Visual resources are the natural and man-made features that give a particular environment its aesthetic qualities. In undeveloped areas, landforms, water surfaces, and vegetation, are the primary components that characterize the landscape. Man-made elements such as buildings,



fences, and streets may also be visible. These may dominate the landscape or be relatively unnoticeable. In developed areas, the natural landscape is more likely to provide a background for more obvious man-made features. The size, forms, materials, and functions of buildings, structures, roadways, and infrastructure will generally define the visual character of the built environment. These features form the overall impression that an observer receives of an area or its landscape character. Attributes used to describe the visual resource value of an area include landscape character, perceived aesthetic value, and uniqueness.

The scenic qualities of some special areas are protected by laws (such as the Wilderness Act or the National Wild and Scenic Rivers Act) that seek to preserve natural and scenic integrity. Federal land managers also classify the scenic value of lands in accordance with federal land management regulations in order to set management objectives to preserve a desired or existing visual quality standard. In urban areas, there may be ordinances or zoning provisions that guide physical development.

The ROI for land use and visual resources includes the generally unimproved area surrounding Camp Warlord on the eastern portion of the base, and the unimproved area to the southwest of the airfield in the western portion of the base for the Alternative Action.

### 3.5.2 EXISTING CONDITIONS

Land use at the base, and its associated visual character, is typical of a military airfield and can be divided into five general categories: airfield and aircraft support, administrative, residential, recreational, and open space. Airfield and aircraft support land use is focused on the runway, hangars, and aircraft service areas located in the northern third of the base. Administrative facilities are generally located in the central portion of the base, with residential areas in the base's southwestern portion. The south-central portion of the base is dedicated to community facilities and outdoor recreation (e.g., the base golf course). Much of the eastern half of the base and perimeter areas remain open space, either undeveloped or used for training.

Development of LRAFB is guided by a General Plan (USAF 2001b), which provides base leaders with goals and objectives to assist in planning decisions. The overall goal of the plan is to provide a framework for effective planning, programming, design, construction, and resource management. In November 2000, the Main Base 20-Year Area Development Plan was prepared. The vision of this plan was to design a base center that would connect home, work and leisure (USAF 2001b). In addition, in early 2001 the Central Campus Area Development Plan was prepared. This plan combined the elements of the General Plan and the Main Base 20-Year Area Development Plan while incorporating the AETC Design Standards for Installation Excellences (USAF 2001b). This plan focuses on development of the central part of the base.

LRAFB encompasses 6,128 acres and is zoned as a planned community with various land uses such as industrial, administrative and training areas, housing areas and recreational areas. Approximately 1,182 buildings are currently located on the base.

The non-industrial area of the base has administrative office and training buildings; 1,535 family housing units; unaccompanied housing for personnel; an Army and Air Force Exchange Service; three social clubs; a bowling alley; and physical fitness center.

Outdoor recreational facilities consist of softball fields, a batting cage, tennis courts, a swimming pool, a nature trail, Family Camp, and an 18-hole golf course. The 39-acre base lake, located in the southwestern quadrant of the base, is the central feature of the Military Family Housing area and can be used for non-motor boating, and fishing.

The industrial section of the base consists of the airfield and its runway and associated aircraft operations and maintenance areas and includes roughly the northern third of the base.

The location of the Proposed Action includes Camp Warlord (an established camp on the eastern portion of LRAFB comprised of basic camp facilities) as well as the unimproved land currently categorized as open space immediately adjacent to the camp.

The alternative RTC site is located to the southwest end of the runway on an approximately 400-acre parcel of unimproved land also currently categorized as open space.

### **3.6 SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE**

#### **3.6.1 DEFINITION OF THE RESOURCE**

Socioeconomic resources are defined as the basic attributes associated with the human environment, particularly population and economic activity. Population is described by the change in magnitude, characteristics, and distribution of people. Economic activity is typically composed of employment distribution, personal income, and business growth. Any impact on these two fundamental socioeconomic indicators can have ramifications for secondary considerations, such as housing availability and public service provision. The region of influence for socioeconomic and environmental justice includes the base and its immediately surrounding community. Faulkner County was excluded from this analysis. Although a portion of Camp Robinson is located within Faulkner County, Camp Robinson does not significantly contribute to either the population or the economic activity of Faulkner County due to the transient nature of the Camp Robinson population.

To comply with NEPA, the planning and decision making process for actions proposed by federal agencies involves a study of other relevant environmental statutes and regulations,

including EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, which was issued on February 11, 1994. The essential purpose of EO 12898 is to ensure the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no group of people, including racial, ethnic, or socioeconomic groups, should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, tribal, and local programs and policies.

### 3.6.2 EXISTING CONDITIONS

The Base is located in the town of Jacksonville, Arkansas, a city of approximately 30,000 people. Jacksonville provides many services to the base, such as civilian police and ambulance support. LRAFB is located in Pulaski County approximately 14 miles north of the City of Little Rock in Central Arkansas.

#### 3.6.2.1 Population

The population in Pulaski County has grown in the last 10 years from 349,660 in 1990 to 361,967 in 2000. This represents a 3.4 increase overall, and an annual growth rate of 0.33 percent (U.S. Bureau of Census 2000). However, this is slower than the State of Arkansas, which experienced a 13.7 percent change in population and a 1.29 percent growth rate over the same 10-year period. Compared to the rest of the nation, Pulaski County experienced less than half the population increase. The U.S. had a 13 percent overall increase in population and a 1.2 annual rate of growth in the last 10 years (U.S. Bureau of the Census 2000).

LRAFB has a total population of approximately 12,000. The military population contributes about 5,000 personnel (including an average daily student load of about 200), with 5,600 dependents and 1,400 civilians (USAF 2003b).

#### 3.6.2.2 Economic Activity

The total annual payroll is roughly \$270 million (USAF 2003b). Approximately 2,939 indirect jobs are created by base activities generating a payroll of roughly \$97 million. The annual expenditures for construction, services, and procurement of materials, equipment and supplies come to over \$145 million. The total annual economic impact estimate of LRAFB to Central Arkansas is more than \$512 million (USAF 2003b). The socioeconomic characteristics of Pulaski County and Arkansas as a whole are shown in Table 3.6-1.

**Table 3.6-1. Socioeconomic Characteristics of Pulaski County and the State of Arkansas**

	<i>Pulaski County</i>	<i>State of Arkansas</i>
Total Population, 2000	361,474	2,673,400
Percent Non White Population	37.1%	21.4%
Number of Households	137,210	1,042,696
Number of Housing Units	161,135	1,173,043
Median Value Owner Occupied	\$85,300	\$72,800
Percent Persons Below Poverty Level	13.3% <sup>1</sup>	15.8% <sup>1</sup>
Median Household Income	\$38,120	\$32,182

Note: 1. The average poverty threshold for a family of four in 1999 was \$17,029 in annual income.

Source: U.S. Bureau of Census 2000.

### **3.7 SOLID AND HAZARDOUS MATERIALS AND WASTE**

#### **3.7.1 DEFINITION OF THE RESOURCE**

The terms “hazardous materials” and “hazardous waste” refer to substances defined as hazardous by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and the Solid Waste Disposal Act (SWDA), as amended by the Resource Conservation and Recovery Act (RCRA). In general, hazardous materials include substances that, because of their quantity, concentration, or physical, chemical, or infectious characteristics, may present substantial danger to public health or the environment when released into the environment. Hazardous wastes that are regulated under RCRA are defined as any solid, liquid, contained gaseous, or semisolid waste, or any combination of wastes that either exhibit one or more of the hazardous characteristics of ignitability, corrosivity, toxicity, or reactivity, or are listed as a hazardous waste under 40 CFR Part 261. Petroleum products include petroleum-based fuels, oils, and their wastes. The IRP is a USAF program to identify, characterize, and remediate environmental contamination from past activities at USAF installations.

Issues associated with hazardous material and waste typically center around waste streams, underground storage tanks (USTs), aboveground storage tanks (ASTs), and the storage, transport, use, and disposal of pesticides, fuels, lubricants, and other industrial substances. When such materials are improperly used in any way, they can threaten the health and well being of wildlife species, habitats, and soil and water systems, as well as humans. This section also considers solid waste.

Specific environmental statutes govern the management of hazardous materials and hazardous waste. The key regulatory requirements include:

*Comprehensive Environmental Response, Compensation and Liability Act of 1980 (42 USC 9601–9675)* as amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986. CERCLA/SARA regulates the prevention, control, and compensation of environmental pollution.

*Community Environmental Response Facilitation Act of 1992 (CERFA) (42 USC 9620)*. This act amended CERCLA to require that, prior to termination of federal activities on any real property owned by the federal government, agencies must identify real property where hazardous substances were stored, released, or disposed of.

*Emergency Planning and Community Right-to-Know Act (EPCRA) of 1986 (42 USC 11001–11050)*. EPCRA requires emergency planning for areas where hazardous materials are manufactured, handled, or stored and provides citizens and local governments with information regarding potential hazards to their community.

*Resource Conservation and Recovery Act of 1976 (42 USC 6901–6992)*. RCRA established standards and procedures for handling, storage, treatment, and disposal of hazardous waste.

*Federal Facility Compliance Act (FFCA) of 1992 (Public Law [P.L.] 102-426)*. This act provides for a waiver of sovereign immunity on the part of federal agencies with respect to federal, state, and local requirements relating to RCRA solid and hazardous waste laws and regulations.

*Pollution Prevention Act of 1990 (42 USC 13101–13109)*. This act encourages minimization of pollutants and waste through changes in production processes.

*USEPA Regulation on Identification and Listing of Hazardous Waste (40 CFR Part 261)*. This regulation identifies solid wastes subject to regulation as hazardous and to notification requirements under RCRA.

*USEPA Regulation on Standards for the Management of Used Oil (40 CFR Part 279)*. This regulation delineates requirements for storage, processing, transport, and disposal of oil that has been contaminated by physical or chemical impurities during use.

*USEPA Regulation on Designation, Reportable Quantities, and Notification (40 CFR Part 302)*. This regulation identifies reportable quantities of substances listed in CERCLA and sets forth notification requirements for releases of those substances. It also identifies reportable quantities for hazardous substances designated in the CWA.

The ROI for hazardous materials, hazardous waste, and petroleum products is defined as the area contained within the proposed RTC and any additional area upon which modifications to the site might occur.

### 3.7.2 EXISTING CONDITIONS

This section describes the affected environment and management activities associated with hazardous materials and petroleum products, hazardous and petroleum wastes, IRP sites, and solid waste at the proposed RTC.

#### 3.7.2.1 Hazardous Materials and Petroleum Products

A Hazardous Materials Pharmacy (HAZMART) tracking system has been implemented at LRAFB to manage documentation and handling of hazardous materials. This is a single source, pharmaceutical approach to inventory, monitor, and reduce the quantities of stored materials (USAF 2001d).

In the past, LRAFB engaged in a variety of activities that may have resulted in the release of hazardous materials. These activities have included petroleum, oils, and lubricants (POLs) from fuel storage and distribution and other activities; explosive ordnance disposal; fire training exercises; and landfill operations.

Currently, hazardous materials and petroleum products (including transformers containing polychlorinated biphenyls [PCBs] and buildings with asbestos and lead-based paint) are not used or stored within the proposed RTC. In addition, no pumps, pipes, vents, concrete pads, or other signs of aboveground or underground storage tanks were found during the October 2003 site visit.

#### 3.7.2.2 Hazardous and Petroleum Wastes

Hazardous waste management at LRAFB adheres to RCRA regulations and is guided by the March 2001 *Hazardous Waste Management Plan* (USAF 2001d). Typical hazardous wastes generated at the base include waste paint, paint stripper, paint-contaminated rags, and degreasers. However, hazardous and petroleum wastes are not generated within the proposed RTC area.

#### 3.7.2.3 Installation Restoration Program Sites

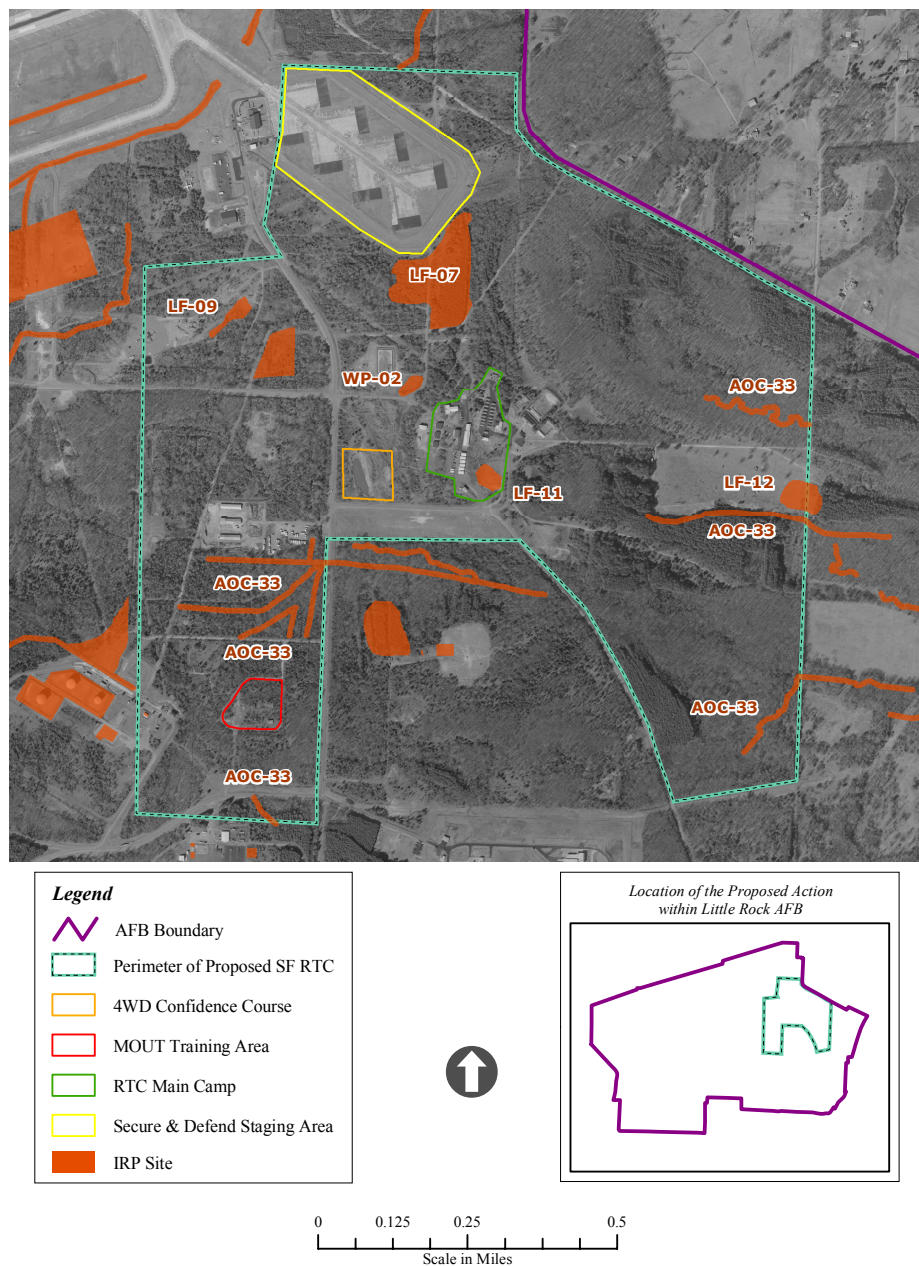
The IRP established a process to evaluate past disposal sites, control the migration of contaminants, assess potential hazards to human health and the environment, and conduct environmental restoration activities. The USAF coordinates IRP activities with the USEPA and the State of Arkansas.

LRAFB has the responsibility for 37 active IRP sites and 37 active Areas of Concern (AOCs). LRAFB is actively pursuing cleanup at all sites, consistent with federal and state regulations and guidance (USAF 2003).

The IRP currently includes preliminary assessment and remedial investigation/feasibility studies to determine the disposition of hazardous waste sites identified at the base. The program is administered through the 314 CES/CEV, and is supported by the Public Affairs Office and the Staff Judge Advocate's Office. In February 2000, LRAFB signed a Consent Order with Arkansas DEQ to direct future remediation actions in accordance with RCRA provisions.

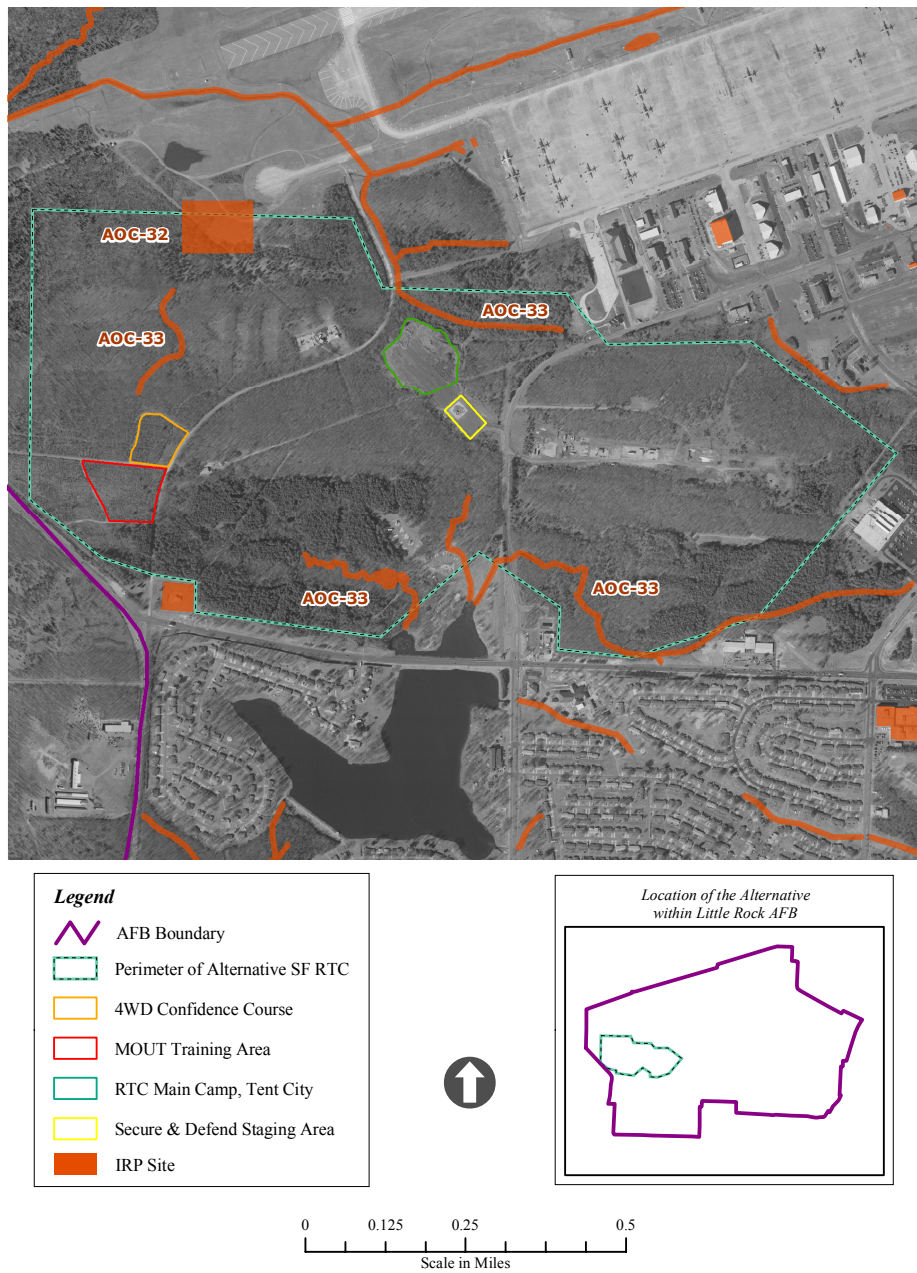
According to the RCRA Facility Investigation, Phase II (USAF 2002c), portions of six IRP sites are located within the boundaries of the Proposed RTC and/or the Alternative RTC sites (Figures 3.7-1 and 3.7-2). These six sites are described as follows:

- **AOC 33 (also known as AOC No. 8) – Basewide Storm Drainage System.** AOC No. 8 was identified during the RCRA Facility Assessment in 1990. A RCRA Facility Investigation (RFI) was performed to determine the presence or absence of contamination attributable to operation at the AOC. Based on LRAFB activities, the storm water discharges may be contaminated with waste oil, fuel, solvents, hydraulic fluid, cleaning solutions, and heavy metals.
- **WP 02 – Discharge Pit.** This discharge pit has been identified as a sludge and sump water disposal area. Based on historical site investigations, no further action was proposed and ADEQ responded with a recommendation of adding a monitoring well and performing additional groundwater sampling at this site. Results from subsequent monitoring support a recommended NFA.
- **LF 07 – Landfill No. 1.** This site is a former landfill. Based on historical site investigations, NFB was proposed for this site. Groundwater monitoring wells were recommended by ADEQ. Results from subsequent monitoring support a recommended NFA.
- **LF 09 – Landfill No. 3.** This site is a former landfill. Based on historical site investigations, NFB was proposed for this site. Groundwater monitoring wells were recommended by ADEQ. Results from subsequent monitoring support a recommended NFA.



**Figure 3.7-1.**  
**IRP Sites Associated with the Proposed Regional Training Center Site**





**Figure 3.7-2.**  
**IRP Sites Associated with the Alternative Regional Training Center Site**

- **LF 11 – Landfill No. 5.** This site is a former landfill. Based on historical site investigations, NFB was proposed for this site. Groundwater monitoring wells were recommended by ADEQ. Results from subsequent monitoring support a recommended NFA.
- **LF 12 – Landfill No. 6.** This site is a former landfill. Based on historical site investigations, NFB was proposed for this site. Groundwater monitoring wells were recommended by ADEQ. Results from subsequent monitoring support a recommended NFA.

#### 3.7.2.4 Solid Waste

Municipal solid waste management and compliance at USAF installations is established in AFI 32-7042, *Solid and Hazardous Waste Compliance*. In general, AFI 32-7042 establishes the requirements for installations to have a solid waste management program to incorporate the following: a solid waste management plan; procedures for handling, storage, collection, and disposal of solid waste; record-keeping and reporting; and pollution prevention. Source reduction, resource recovery, and recycling of solid waste are addressed in AFI 32-7080, *Pollution Prevention Program*.

A private contractor accomplishes the collection of municipal solid waste at LRAFB. This contract includes collection of municipal waste from base office facilities and curbside collection of solid waste. LRAFB utilizes a contractor that operates a base-wide recycling program as part of their facilities (USAF 2003).

Currently, municipal solid waste from LRAFB is transported and disposed of at Two Pines Landfill, located in the city of Jacksonville. This is a Subtitle D Landfill permitted to accept municipal waste. The currently permitted and operating disposal cells have an expected operating period of approximately 4 years before reaching capacity (USAF 2003). The Two Pines Landfill currently receives a maximum of about 5,000 tons of solid waste per day (personal communication, Magnum 2004).

### 3.8 CULTURAL RESOURCES

#### 3.8.1 DEFINITION OF THE RESOURCE

Cultural resources are any prehistoric or historic district, site, or building, structure, or object considered important to a culture, subculture, or community for scientific, traditional, religious or other purposes. They include archaeological resources, historic architectural and engineering resources, and traditional resources. Cultural resources are protected by federal law when they

meet established criteria for listing on the NRHP. Such properties require consideration regarding adverse impacts from a proposed undertaking. Both archaeological and architectural resources must be evaluated in light of four NRHP eligibility criteria. The criteria that prehistoric or historic sites, districts, buildings or structures must meet are as follows (36 CFR 60.4):

- a. Properties are associated with events that have made a significant contribution to the broad patterns of our history.
- b. Properties are associated with the lives of significant persons in our past.
- c. Properties that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.
- d. Properties that have yielded, or may be likely to yield, information important to prehistory or history.

On 21 November 1999, the DoD promulgated its Native American and Alaska Native Policy, which emphasizes the importance of respecting and consulting with tribal governments on a government-to-government basis. The Policy requires an assessment, through consultation, of the affect of proposed DoD actions that may have the potential to significantly affect protected tribal resources, tribal rights, and Indian lands before decisions are made by the services.

The area of potential effect for cultural resources consists of the existing ANG installation and the proposed parcel acquisitions.

### 3.8.2 EXISTING CONDITIONS

#### 3.8.2.1 Historical Setting

The LRAFB region has been inhabited for at least 12,000 years. It was first occupied by small nomadic bands that hunted large game and gathered wild plant foods. As the climate warmed, and large game animals declined, people became more dependent on deer and a variety of nuts and other plant foods. Eventually native seed plants were cultivated and settlement became more stationary, concentrating in the bottomlands and river valleys (Parsons Engineering Science 1998). Ceramics were introduced and long-distance trade of raw materials and artifacts increased, as did population. With the introduction of maize cultivation, larger villages, with mounds and other earthworks developed (Parsons Engineering Science 1998).

In the mid-1500s, Spanish explorers recorded complex societies in the region that were no longer present 130 years later (Parsons Engineering Science 1998). The French encountered the Quapaw people, a southeastern Siouan group who left the Ohio Valley in the early 1600s and moved down the Mississippi River into Arkansas where they were known to other tribes as “Ugaxpa,” or “downstream people.” They settled four villages at the mouth of the Arkansas River where they remained until they were displaced by Euroamericans (Quapaw Tribal Office 2002). The French remained allies with the Quapaw through the Seven Years’ War (French-Indian War) when France ceded all land west of the Mississippi to the Spanish (1762). Spanish rule was marked by Spanish and English competition for the allegiance of the Quapaw (Quapaw Tribal Office 2002). In 1818, the U.S. government was granted a cession of land encompassing all of what is now southern Arkansas, Oklahoma, and part of Louisiana from the Quapaw. Land speculators petitioned the government to remove the Quapaw, and in 1824, the state terminated all Quapaw claims to Arkansas lands (Quapaw Tribal Office 2002). The Quapaw were removed from their homeland to the Red River in northwestern Louisiana where they joined the Caddo temporarily. In 1833, the Quapaw signed another treaty removing them from Arkansas for the last time to northeastern Indian Territory in Oklahoma (Quapaw Tribal Office 2002).

Active Euroamerican settlement in the Pulaski County area began after the Louisiana Purchase in 1803. The population grew slowly and the area remained primarily agricultural (Parsons Engineering Science 1998). The Jacksonville-Gray township area was established in 1820-21 (Jacksonville Chamber of Commerce 2000). After Arkansas became a state in 1836, the area continued to grow. During the Civil War, Union forces came through the area on the way to an assault on Little Rock in 1863 (Jacksonville Chamber of Commerce 2000). Jacksonville expanded during the 1870s after a right-of-way was granted to the Cairo and Fulton Railroad Company and lots were established along both sides of the railway. By 1892, Jacksonville had a population of 200, which was maintained for many years.

In the Depression of the 1930s, the Civilian Conservation Corps, Camp Jacksonville, provided construction employment for many area men. The Arkansas Ordnance Plant (AOP), a fuse and detonator manufacturing plant built in 1941, provided employment for thousands. At its peak, the plant employed 13,500 (Jacksonville Chamber of Commerce 2000). Pulaski County received a total of \$137 million in war contracts between 1940 and 1945. The ordnance plant ceased operations at the close of the war in 1945 and the town was left without employment for much of its population (Jacksonville Chamber of Commerce 2000).

After the war, AOP land and facilities were sold to a number of parties. The Federal government retained the northern part of AOP land. This parcel later became part of LRAFB (USAF 2001b). In 1952, the USAF announced plans to build a \$31 million jet bomber base near Jacksonville and LRAFB opened in 1955 (USAF 2002b). The base was assigned to the SAC with the 70<sup>th</sup> Reconnaissance Wing as the first assigned unit (USAF 2001b). In 1956, the first B-47 medium

bombers arrived. The 308<sup>th</sup> Strategic Missile Wing assumed operational command of 18 Titan II missile sites located around central Arkansas in 1962. The 64<sup>th</sup> Tactical Airlift Wing took over the base and the first C-130 arrived in 1970. In 1971, the 314th Tactical Airlift Wing moved from a base in Taiwan to Little Rock (USAF 2001b).

### 3.8.2.2 Cultural Resources

A survey of all accessible portions of the base recorded a total of 38 archaeological sites (Cliff et al. 1997). None are listed in the NRHP (National Register Information Service 2002). There are 12 archaeological sites within or near the areas of the Proposed Action and alternative. They are all historic rural residential sites that have been determined ineligible for the NRHP, except for site 3PU450, which is an unevaluated site with a potential associated cemetery. Table 3.8-1 lists these resources.

**Table 3.8-1. Archaeological Resources In or Near the Project Area**

<i>Site Number</i>	<i>Site Type</i>	<i>National Register Status</i>
3PU429	Historic rural residential	Ineligible
3PU434	Historic rural residential	Ineligible
3PU435	Historic rural residential	Ineligible
3PU436	Historic rural residential	Ineligible
3PU437	Historic rural residential	Ineligible
3PU438	Historic trash dump	Ineligible
3PU439	Historic rural residential	Ineligible
3PU440	Historic rural residential	Ineligible
3PU443	Non-residential	Ineligible
3PU445	Historic rural residential	Ineligible
3PU447	Historic residential	Ineligible
3PU450	Historic rural residential with a possible cemetery.	Unevaluated

Source: Cliff et al. 1997

A building inventory identified more than 90 buildings with the potential to be historic resources. Of these, three buildings constructed before the Cold War are potentially eligible for the NRHP (Cliff et al. 1997). Inventory of 110 Cold War-era facilities (Lowe et al. 1997) identified one that is eligible for the NRHP, the SAC Bomber Alert Facility (Building 160). The remaining facilities were not evaluated for NRHP eligibility (Lowe et al. 1997). No traditional resources have been identified at the base (Cliff et al. 1997).

There are no known federally recognized Native American lands or resources in the area of the Proposed Action. The Quapaw Indian Tribe, the Caddo Indian Tribe of Oklahoma, and the Tunica-Biloxi Indians of Louisiana, Inc., have been contacted regarding this action.

### **3.9 SAFETY**

#### **3.9.1 DEFINITION OF RESOURCE**

This section addresses ground and explosive safety associated with activities conducted by the 314 AW, LRAFB, Arkansas. Ground safety considers issues associated with human activities, and operations and maintenance activities that support unit operations. Explosive safety discusses the management and use of ordnance or munitions associated with installation operations and training activities. The ROI for safety is LRAFB.

#### **3.9.2 EXISTING CONDITIONS**

Day-to-day operations and maintenance activities conducted by the 314 AW are performed in accordance with applicable USAF safety regulations, published Air Force Technical Orders, and standards prescribed by Air Force Occupational Safety and Health (AFOSH) requirements.

Ordnance is handled and stored in accordance with USAF explosive safety directives (AFI 91-201), and all munitions maintenance is carried out by trained, qualified personnel using USAF-approved technical data.

All ordnance required for 314 AW operations is properly stored in approved facilities. There are no waivers in effect. Required Clear Zones around munitions storage facilities have been established, and comply with all DoD and USAF explosive safety standards.

### **3.10 INFRASTRUCTURE**

#### **3.10.1 DEFINITION OF THE RESOURCE**

Resources discussed in this section include transportation facilities on LRAFB and the local utility services. The ROI for these resources is limited to the proposed RTC area.

#### **3.10.2 EXISTING CONDITIONS**

##### **3.10.2.1 Transportation**

The primary entrance to the base is through the Vandenberg Boulevard Gate, which is accessed via U.S. Route 67/167. Major functional areas within the base, such as aircraft support, administration, and residential areas are served by confined street systems linked by base arterials. Important cross-base roads that link these functional areas include Vandenberg Boulevard, Thomas Avenue, and Arnold Drive.

The base transportation network consists of approximately 100 miles of roadways and 687,000 square yards of paved parking lots and driveways. The majority of the roads are paved with asphalt, and most of the primary and secondary roads have curb and gutter. A variety of improved, semi-improved, and unimproved roadways are located in the proposed RTC area. Roadways within the ROI are lightly utilized.

### 3.10.2.2 Utilities

#### *Water Supply*

LRAFB is supplied with potable water by the City of Jacksonville, which obtains its water from the North Little Rock municipal system. Water is drawn primarily from Lake Maumelle, treated by the Little Rock Municipal Water Works, distributed by the North Little Rock municipal system, and piped to Jacksonville and LRAFB. The City of Jacksonville's potable water system design capacity is 10 million gallons per day (mgd) with an average daily output of 4 mgd. Peak demand occurs during the summer with a daily average of about 6 mgd (personal communication, Anderson 2004).

Water is stored in one 1.3 million gallon (4.94 million liter) and two 30,000-gallon (114,000 liter) storage tanks and supplied to base users by one 600-gallon and two 1,100-gallon per minute high service pumps. The base performs supplemental chlorination of water prior to distribution. Seven automatic pipe-flushing devices have been installed. These devices automatically flush the system in areas of reduced flow and dead-end conditions to alleviate turbidity and low chlorine content caused by low usage. Base Civil Engineering maintains the water distribution system and 314<sup>th</sup> CES Utilities personnel periodically test for chlorine, pH, copper, orthophosphates and iron. Between October 2003 and January 2004, LRAFB consumed an average of 1.57 million gallons of potable water per month (personal communication, Baker 2004). Potable water is currently supplied to Camp Warlord (i.e., showers, latrines, and laundry facilities, etc.).

#### *Sanitary Sewer System*

The sanitary sewer system consists of approximately 55 miles of main and secondary lines, 645 manholes, and four major lift stations and force mains. There are ten smaller lift stations and force mains serving individual facilities. The majority of the system is concrete pipe, with some small sections of polyvinyl chloride (PVC), ductile iron, cast iron, vitrified clay, and transite. The effluent discharges through two miles of USAF-owned outfall pipeline into the city's sanitary sewer system and is treated at the Jacksonville sewage treatment facility. The permit issued by the Jacksonville Wastewater Utility regulates the base's discharge to the utility. Wastewaters are treated at the Dr. J. Albert Johnson Regional Wastewater Treatment Plant which has a permitted design capacity of 12 mgd, with average and peak daily flows of 5 and 20 mgd

(through the use of retention basins), respectively. Wastewater treatment plant expansions were completed in 2001 which included the closure of the West Wastewater Treatment Plant. Treatment processes include activated sludge treatment with anaerobic digestion of sludge (personal communication, Zehtaban 2004).

Four small areas are served by septic systems discharging into leach fields: two at the ammunition storage area, one near the Main Gate, and one serving the Boy Scout area. Camp Warlord is provided with sanitary facilities and is connected to the installation's sanitary sewer system.

### *Electrical Service*

Power is delivered to LRAFB at the main switching station, located on Marshall Road south of the intersection with Vandenberg Boulevard. Electrical service is provided to the base via four 13.8 kilovolt (kV) circuit switches. Circuits A and B provide service to the main cantonment area, flightline, and airfield, while C and D serve the family housing area. The system consists of approximately 328 miles of primary and secondary distribution lines with 80 percent overhead and 20 percent underground. Electrical service is provided in the Camp Warlord area and distribution lines are located throughout the proposed RTC area.

### *Natural Gas Distribution System*

A contractor supplies natural gas to the base. An 8-inch steel main connects the base to the contractor's district regulator located just west of Redmond Avenue at the southern boundary. The cantonment area of the base is served by a looped system. Several non-looped lines provide service to individual facilities or areas, such as the Defense Reutilization and Marketing Office (DRMO) and recycling area, the AMC Combat Aerial Delivery School (CADS) facilities at the east end of the flight line, the fuel farm, and the munitions storage area (MSA). The gas service system, which is predominately steel pipe, is protected by a cathodic protection system, to prevent corrosion. Recent service lines have been installed using polyethylene pipe. While more likely to be damaged by digging, this piping is not susceptible to corrosion and does not require cathodic protection. A 2-inch dead-end gas main currently provides service to the Camp Warlord area (personal communication, Bryan 2004).

### *Storm Drainage System*

The storm drainage system is made up of about 32 miles of underground piping, drop inlets, and manholes. In addition to the underground drainage network, portions of the base are drained by overland surface flow to man-made and natural drainage courses that carry the storm water to one of the discharge points. Storm drain inlets are located in the Camp Warlord area and piping is located in portions of the RTC.



## **4.0 ENVIRONMENTAL CONSEQUENCES**

This chapter of the EA assesses potential environmental consequences associated with the Proposed Action and its alternative. Potential impacts are addressed in the context of the scope of the Proposed Action and the alternative as described in Chapter 2.0 and in consideration of the potentially affected environment as characterized in Chapter 3.0.

### **4.1 EARTH RESOURCES**

#### **4.1.1 METHODOLOGY**

Protection of unique geologic features, minimization of soil erosion, and siting facilities in relation to potential geologic hazards and soil limitations are considered when evaluating impacts to earth resources. Generally, impacts can be avoided or minimized if proper construction techniques, erosion control measures, and structural engineering designs are incorporated into project development.

Analysis of potential impacts to geologic resources typically includes identification and description of resources that could potentially be affected, examination of the potential effects that an action may have on the resource, and provision of mitigation measures, if necessary. Analysis of impacts to soil resources resulting from proposed activities examines the suitability of locations for proposed operations and activities. Impacts to soil resources can result from earth disturbance that would expose soil to wind or water erosion.

#### **4.1.2 IMPACTS**

##### **4.1.2.1 Proposed Action**

Under the Proposed Action, the physiography, underlying geology, and topography of the area would not change, however, the soil would be disturbed by construction activities. Under this alternative, approximately 0.75 acres of land would become impervious as a result of construction of required facilities, and approximately two acres of land would be temporarily disturbed as a result of construction activities and minor grading of the 4WD confidence training course.

The area where soil would be disturbed due to the Proposed Action is primarily composed of the Linker-Mountainburg association, Leadvale silt loam, Guthrie-Leadvale complex, and Urban Land. Linker-Mountainburg soils are moderately sloped, and highly erodible. Leadvale silt loams are moderately well-drained and have a moderate bearing capacity. The Guthrie-Leadvale complex are poorly drained and have a low bearing capacity. Urban Land soils have been significantly disturbed by past activities and can no longer be classified as the original soil or any

other native soil. Further disturbance of Urban Land soils would have no impact in terms of preserving unique soils.

Under the Proposed Action, it is estimated that a total of approximately 0.75 acres would become impervious as a result of the construction activities. Approximately two acres of land would be temporarily disturbed as a result of construction activities and grading at the 4WD confidence course. Well maintained silt fences, wetting of the construction site, daily site inspections, and other BMPs would be used to limit or eliminate soil movement, stabilize runoff, and control sedimentation. Following construction, disturbed areas not covered with impervious surfaces would be reestablished with appropriate vegetation and managed for future erosion. Additionally, the 4WD confidence course would be designed with appropriate erosion control measures built into the course to minimize erosion potential. The 4WD course is basically a closed basin and it would not be possible for soil to move into waterways because of the topographic nature of the site. During dry and windy periods, the course would be wetted to prevent wind erosion. Given the relatively small area potentially disturbed and the employment of engineering practices that would minimize potential erosion, impacts to earth resources are expected to be minimal.

#### 4.1.2.2 Alternative Action

Under the Alternative Action, the physiography, underlying geology, and topography of the area would not change. There would be no permanent facilities constructed and therefore the temporary erosion potential from construction activities would not be present. However, with no permanent facilities and no parking areas, the area of the tent compound would likely become a very hardened site with erosion increasing as vegetation was slowly degraded. During wet periods, the site would become very muddy and unmanageable. With no vegetation to aid in infiltration, erosion would increase and minor sedimentation of nearby waterways would likely result. Approximately one acre would be temporarily disturbed from minor grading of the 4WD confidence course and approximately one acre would be temporarily disturbed for development of the MOUT training site and its access roadway. During development of the main tent compound, approximately two acres would be temporarily disturbed as a result of vegetation removal. Impacts to earth resources would likely be minimal.

#### 4.1.2.3 No Action Alternative

Under the No Action alternative, the SF RTC would not be established at LRAFB. There would be no construction associated with this proposal and no impacts to earth resources would occur. Conditions would remain as described in Section 3.1.2.

#### 4.1.2.4 Cumulative Impacts

There are several other ground-disturbing activities either currently underway, or planned over the short-term in the ROI (Section 2.7). Approximately 400 acres of soil could be disturbed as a result of the projects described in Section 2.6 over the next several years. Appropriate BMPs as described above would be employed to minimize potential erosion during construction activities and appropriate vegetation would be re-established on the sites to ensure rapid soil stabilization. Cumulative impacts to earth resources are expected to be minor.

## 4.2 WATER RESOURCES

### 4.2.1 METHODOLOGY

Criteria for evaluating impacts related to water resources associated with the proposal are water availability, water quality, and adherence to applicable regulations. Impacts are measured by the potential to reduce water availability to existing users; endanger public health or safety by creating or worsening health hazards or safety conditions; or violate laws or regulations adopted to protect or manage water resources.

The NPDES Branch of the Water Division of ADEQ and the USACE are the regulatory agencies that govern water resources in the state of Arkansas and at LRAFB. These agencies have adopted the USEPA's applicable environmental rules and regulations. The CWA of 1977 regulates pollutant discharges and development activities that could affect aquatic life forms or human health and safety.

### 4.2.2 IMPACTS

#### 4.2.2.1 Proposed Action

Under the Proposed Action, approximately 2.75 acres of land would be disturbed resulting in 0.75 acre of new impervious surfaces. In general, increases in impervious surfaces act to increase peak discharge volume speed delivery of water to nearby streams and waterways, which ultimately increases chances for flooding. In undeveloped land, rainfall and snowmelt collect and are stored in vegetation, in the soil column, or in topographic depressions. Water is then utilized by plants and is respired, or it moves slowly into groundwater and/or eventually to waterbodies where it slowly moves through the hydrologic cycle. Removal of vegetation decreases infiltration into the soil column and thereby increases the quantity and timing of runoff. Replacement of vegetation with an impervious surface eliminates any potential for infiltration and also speeds up delivery of the water to nearby drainage and stream channels. With less

storage capacity in the soil column and vegetation, urban streams rise more quickly during storm events and have higher peak discharge rates, which both increase the potential for flooding.

An addition of approximately 0.75 acre of impervious surface to this area would not act to substantially increase peak discharge or speed delivery of water to Jack's Bayou, and ultimately to Bayou Meto. Additionally, procedures would be implemented to moderate the volume and slow the discharge to these streams. Landscaping would be installed as appropriate to increase infiltration capability in the Camp Warlord area. The parking areas would be sized to minimize the amount of impervious surface to the extent possible.

As shown in Figure 3.2-2, the 100-year floodplain snakes through the proposed 610-acre site. No permanent or temporary structures would be built in the 100-year floodplain. There are no impacts to or from the 100-year floodplain anticipated as a result of the Proposed Action.

During the clearing, grading, and construction of facilities, erosion control BMPs would be employed to minimize erosion into the nearby waterways. These measures would include installation of silt fences or a berm between construction activities and any drainages nearby.

Impacts to water resources as a result of the Proposed Action are expected to be minimal.

#### 4.2.2.2 Alternative Action

Under the Alternative Action, there would be no permanent facilities constructed except for the 2,500 square foot MOUT area, and there would be no pavements associated with this alternative. There would be two acres temporarily disturbed during vegetation removal at the main compound area, however, during this period BMPs would be employed to ensure that erosion and siltation were minimized. However, with no permanent facilities and no parking areas, the area of the tent compound would likely become a very hardened site with erosion increasing as vegetation was slowly degraded. During wet periods, the site would become very muddy and unmanageable. With no vegetation to aid in infiltration, erosion would increase and minor sedimentation of nearby waterways would likely result. Procedures would be implemented to ensure that sedimentation was minimized. This would likely require surfacing the tent compound with a gravelly substrate that would aid in slowing runoff and improving infiltration. Impacts to water resources from implementation of this alternative would be expected to be negligible.

#### 4.2.2.3 No Action Alternative

Under the No Action alternative, the SF RTC would not be established at LRAFB. There would be no construction associated with this proposal and no impacts to water resources would occur. Conditions would remain as described in Section 3.2.2.

#### 4.2.2.4 Cumulative Impacts

There are several other ground-disturbing activities either currently underway, or planned over the short-term in the ROI (Section 2.7). Under the planned construction activities, there would be an addition of approximately 18 acres of impervious surface added at LRAFB. This would include approximately 160 acres in the 100-year floodplain temporarily disturbed as a result of vegetation removal in the Clear Zone surrounding the airfield as a result of gaining compliance with UFC safety criteria. Appropriate construction BMPs as described above would be employed to minimize potential runoff and sedimentation during construction activities and appropriate vegetation would be re-established on the sites to ensure rapid soil stabilization. The slight increase in impervious surface would require that the storm water management system is monitored and updated, as necessary to accommodate increased runoff. Permanent retention basins may be required depending on the increase in runoff. Cumulative impacts to water resources are expected to be minor given BMPs employed.

### 4.3 BIOLOGICAL RESOURCES

#### 4.3.1 METHODOLOGY

Evaluation of impacts is based upon (1) the importance (legal, commercial, recreational, ecological, or scientific) of the resource, (2) the rarity of a species or habitat regionally, (3) the sensitivity of the resource to proposed activities, and (4) the duration and magnitude of ecological ramifications. Impacts to biological resources are considered to be greater if priority species or habitats are adversely affected over relatively large areas and/or disturbances cause reductions in population size or distribution of a priority species.

#### 4.3.2 IMPACTS

##### 4.3.2.1 Proposed Action

##### *Upland Vegetation*

Of the approximately 610-acre proposed project area, an estimated 2.75 acres would be disturbed including an estimated 0.75 acres for permanent structures and parking and 2.0 acres of temporarily disturbed land as a result of construction activities and minor grading of the 4WD confidence training course. The 0.75-acre area where the proposed construction activities would occur is in an area that is already disturbed from previous construction activities (Camp Warlord). The proposed 4WD confidence training course is an area that has been largely disturbed previously. There are few trees and some shrubby and herbaceous vegetation does exist there; however it is apparent that the area has been used for a similar function previously.

There is an existing dirt roadway through the site that would simply be modified slightly to accommodate the proposed use. There is a small pond in the center of the site; however this pond would be avoided in the development of the 4WD course. The pond would not be a component of the course in any way, and no impacts to the pond would be expected.

There would be no prime habitat lost as a result of locating this activity at the proposed site. Approximately 10 OP/LPs would be placed in different locations throughout the entire training area. The OP/LPs would be approximately 8 feet by 6 feet (roughly 48 square feet). They would be very minor structures that would be placed as the terrain allowed. The goal of the OP/LPs is to make them so that they are not even seen; therefore, the land surface around them must not be disturbed to the extent possible or else it defeat the purpose. There would be very minimal disturbance to the land surface or vegetation as a result of emplacement of the OP/LPs.

### *Wildlife*

There would be no loss of available habitat to wildlife species as a result of implementation of the Proposed Action because all proposed activities would occur in previously disturbed areas of the base. There would be some temporary disturbance as a result of construction activities; however, these would be temporary and of relatively short duration. There would be more human activity throughout the 610-acre site as a result of personnel traveling overland by foot as well as by vehicle on the roadways. Because the species found on LRAFB are typically well-adapted to the human environment, impacts to these species are expected to be minimal.

### *Threatened, Endangered and Other Sensitive Species*

The implementation of the Proposed Action would have no impact on federal and state listed species because these species do not regularly occur on LRAFB. Additionally, it is unlikely that the proposed SF RTC would have deleterious impacts to sensitive species at the proposed site because most of the Proposed Action would occur on previously disturbed sites. Any species currently occurring at these sites are typically fairly well-adapted to human influences and should not be negatively impacted. No impacts to threatened, endangered, or otherwise sensitive species are expected as a result of the Proposed Action.

### *Wetlands*

As shown in Figure 3.2-2, there are several wetlands located throughout the proposed 610-acre site. No permanent or temporary structures would be built near or within any wetland. No impacts to wetlands are expected as a result of the Proposed Action.

#### 4.3.2.2 Alternative Action

##### *Upland Vegetation*

Under the Alternative Action, there would be no permanent facilities constructed and there would be no pavements associated with this alternative. Of the approximately 410-acre proposed project area, an estimated 1.0 acre would be disturbed to develop the 4WD confidence training course. Additionally, a small parcel of land would be developed into the MOUT training area. Approximately 1.0 acre would be temporarily disturbed to construct the MOUT area and establish a dirt access road. The 6 acres of the main tent compound would require some vegetation clearing to accommodate establishment of the compound. Approximately 2 acres would be cleared of the existing vegetation and appropriate ground cover would be installed to cover the bare soil. Gravel would be used to demarcate primary walkways and hearty vegetation would be planted to keep the substrate manageable. Approximately 10 OP/LPs would be placed in different locations throughout the entire training area. The OP/LPs would be approximately 8 feet by 6 feet (roughly 48 square feet). They would be very minor structures that would be placed as the terrain allowed. The goal of the OP/LPs is to make them so that they are not even seen; therefore, the land surface around them must not be disturbed to the extent possible or else it defeat the purpose. There would be very minimal disturbance to the land surface or vegetation as a result of emplacement of the OP/LPs.

As a result of these activities, approximately 4 acres would be temporarily disturbed to accommodate the proposal. The vegetation at this location is largely a mixed hardwood forest. Therefore approximately 4 acres of mixed hardwood forest would be lost as a result of clearing for the Alternative Action.

##### *Wildlife*

There would be a loss of approximately 4 acres of available mixed hardwood forest habitat to wildlife species as a result of implementation of the Alternative Action. There would also be a minor increase in habitat fragmentation. The increase in fragmentation would likely not impact the fauna that currently use this already highly fragmented habitat. Additionally, there would be an increase in human activity in 409-acre project area, which would further discourage wildlife use of the area. There would be some temporary disturbance as a result of construction activities; however, these would be temporary and of relatively short duration. Because the species found on LRAFB are typically well adapted to the human environment, impacts to these species are expected to be minimal.

### *Threatened, Endangered and Other Sensitive Species*

The implementation of the Alternative Action would have no impact on federal and state listed species because these species do not regularly occur on LRAFB. While some of the sensitive species described in Section 3.3.2 could utilize the alternative RTC site, the potential for negative impacts to them is slight, given the small amount and highly fragmented nature of the habitat that would be affected. Any species currently occurring at these sites are typically fairly well-adapted to human influences and should not be negatively impacted. No impacts to threatened, endangered, or otherwise sensitive species are expected as a result of the Alternative Action.

### *Wetlands*

Although there are some wetlands throughout the entire 409-acre site, there are no wetlands in the portions of the project area that would be developed (Camp Warlord, MOUT, 4WD confidence course, and secure and defend area). No impacts to wetlands are expected as a result of the Proposed Action.

#### 4.3.2.3 No Action Alternative

Under the No Action alternative, the SF RTC would not be established at LRAFB. The forest and grassland plant communities would be unaffected and current wildlife use of the area would be expected to continue. This alternative would not result in impacts to biological resources over and above those that have already occurred due to habitat fragmentation and the construction of buildings and parking lots.

#### 4.3.2.4 Cumulative Impacts

There are several other activities either currently underway, or planned over the short-term in the ROI (Section 2.7). All construction projects are sited within the existing cantonment area, and because this area is previously disturbed and there are no threatened or endangered species known to occur at these sites, impacts to biological resources are not expected as a result of the construction plans. There are several wetlands, consisting of approximately 70 acres that may be filled or otherwise impacted as a result of the UFC compliance projects. Coordination with the USACE is underway and the Section 404 permit is in process. Any potential impacts as a result of this particular project will be managed in close coordination with the agency and through the permit process. Cumulative impacts to biological resources as a result of these projects are expected to be minor.



## 4.4 AIR QUALITY

### 4.4.1 METHODOLOGY

Air emissions resulting from the establishment of a SF RTC at LRAFB were evaluated in accordance with federal, state, and local air pollution standards and regulations to determine if they:

- increase ambient air pollution concentrations above any NAAQS;
- contribute to an existing violation of any NAAQS;
- interfere with or delay timely attainment of NAAQS; or
- impair visibility within any federally mandated PSD Class I area.

The approach to the air quality analysis was to estimate the increase in emission levels due to the proposal. A conformity analysis is not required in an attainment area. Since Pulaski County is an attainment area for all criteria air pollutants, a conformity analysis is not required. There are two PSD Class I areas in Arkansas: the Upper Buffalo Wilderness and the Caney Creek Wilderness. None are located within 100 kilometers of LRAFB. Therefore, the Proposed Action would be unlikely to have a substantial impact on these areas.

### 4.4.2 IMPACTS

#### 4.4.2.1 Proposed Action

The Proposed Action would involve construction activities, including new structures and additions to existing structures, installation of new pavement, commuting in vanpools from LRAFB to Camp Robinson, and travel by military vehicles on unpaved roads during training activities.

**Construction Emissions.** Emissions during the construction period were quantified to determine the potential impacts on regional air quality. Calculations of VOC, nitrogen oxide (NO<sub>x</sub>), CO, and PM<sub>10</sub> emissions from construction, grading, and paving activities were performed using USEPA emission factors compiled in the *California Environmental Quality Air Quality Handbook* (South Coast Air Quality Management District 1993), *Calculations Methods for Criteria Air Pollution Emission Inventories* (Jagielski and O'Brien 1994), and *Air Emissions Inventory Guidance Document for Mobile Sources at Air Force Installations* (O'Brien and Wade 2002). The emission factors for building construction include contributions from engine exhaust emissions (i.e., on-site construction equipment, material handling, and workers' travel) and

fugitive dust emissions (e.g., from grading activities). Paving emissions were calculated based on the assumption that two bulldozers, two rollers, and two asphalt pavers would be operating eight hours per day for approximately eight working days, and include emissions from hauling pavement materials by truck to the site.

**Table 4.4-1. Construction Emissions – Proposed Action**

<i>Source</i>	<i>Pollutants (In Tons per Year)</i>				
	<i>CO</i>	<i>VOC</i>	<i>NO<sub>2</sub></i>	<i>SO<sub>2</sub></i>	<i>PM<sub>10</sub></i>
Building Construction	1.1	0.3	5.1	< 0.1	0.4
New Pavement	0.1	< 0.1	0.3	< 0.1	< 0.1
<b>TOTAL</b>	<b>1.3</b>	<b>0.4</b>	<b>5.4</b>	<b>&lt; 0.1</b>	<b>0.4</b>

Emissions generated by construction and paving projects are temporary in nature and would end when construction is complete. The emissions from fugitive dust (PM<sub>10</sub>) would be significantly less due to the implementation of control measures in accordance with standard construction practices. For instance, frequent spraying of water on exposed soil during construction, proper soil stockpiling methods, and prompt replacement of ground cover or pavement are standard landscaping procedures that could be used to minimize the amount of dust generated during construction. Using efficient practices and avoiding long periods where engines are running at idle may reduce combustion emissions from construction equipment. Vehicular combustion emissions from construction worker commuting may be reduced by carpooling.

In general, combustive and fugitive dust emissions would produce localized, short-term elevated air pollutant concentrations (Table 4.4-1), which would not result in any long-term impacts on the air quality Pulaski County or AQCR 016.

**Operational Emissions.** The Proposed Action would require vanpooling from LRAFB to Camp Robinson for small arms re-certification, vehicular activities on unpaved roads, and solvent usage for weapons cleaning during training activities at LRAFB. Vehicular emission factors were taken from *Calculations Methods for Criteria Air Pollution Emission Inventories* (Jagielski and O'Brien 1994), based on an average 1995 model year. Vanpool emissions were calculated based on the assumption that two vans and one special vehicle designated for carrying weapons and ammunition travel 20 miles round trip for 10 days during each of 16 sessions per year. Emissions of fugitive dust from travel on unpaved roads were calculated using methodology and emission factors in AP-42, USEPA's Compilation of Air Pollutant Emission Factors (USEPA 2003). For the convoy operations, emissions were calculated based on four transport vehicles traveling an average of 20 miles per hour for three hours per day during 10 days in each of 16 sessions per year. Confidence

course emissions were calculated based on 50 students driving a Humvee an average of 20 miles per hour during one half hour in each of 16 sessions per year. Total drive time on the 4WD confidence course would be approximately 25 hours per two-week session.

Weapons cleaning emissions were calculated based on a total of two 30-gallon remote-reservoir cleaners using a solvent such as mineral spirits with a VOC content of seven pounds per gallon. Based on an estimated solvent replenishment rate (due to dripping and evaporation losses) of 10 percent per session and 16 sessions per year, the solvent cleaning operations would emit approximately 0.3 tons of VOC per year. The weapons cleaning operation would require record-keeping to track the addition of new and recovery of spent solvent and would trigger a modification of the solvent degreasing section in the Base's *ADEQ Minor Source Air Permit* (ADEQ 2003). The permit prohibits the use of solvents that contain hazardous air pollutants (HAPs).

The new buildings and building additions could require addition or modification of boilers and heaters (external combustion air emission sources). It is likely that the new equipment would be more efficient and have lower emissions than the heating equipment currently present in the buildings. Nevertheless, the boiler and heater installations or modifications may trigger an update of the Base's *ADEQ Minor Source Air Permit* (ADEQ 2003). Table 4.4-2 summarizes expected operational emissions as a result of the Proposed Action.

**Table 4.4-2. Operational Emissions – Proposed Action**

<i>Source</i>	<i>Pollutants (In Tons per Year)</i>				
	<i>CO</i>	<i>VOC</i>	<i>NO<sub>2</sub></i>	<i>SO<sub>2</sub></i>	<i>PM<sub>10</sub></i>
Van pools	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Convoys	0.1	< 0.1	< 0.1	< 0.1	1.7
Confidence Course	0.1	< 0.1	0.1	< 0.1	0.3
Weapons Cleaning	< 0.1	0.3	< 0.1	< 0.1	< 0.1
<b>TOTAL</b>	<b>0.2</b>	<b>0.3</b>	<b>0.1</b>	<b>&lt; 0.1</b>	<b>2.1</b>

It is expected that these additional operational emissions due to training activities would not result in any long-term impacts on the air quality of Pulaski County or AQCR 016.

#### 4.4.2.2 Alternative Action

Under the Alternative Action, no new buildings or pavements would be added to the training area. Therefore, construction emissions shown in Table 4.4-1 would not occur. It is expected that the operational emissions under the Alternative Action would be virtually identical to those presented in Table 4.4-2 under the Proposed Action. It is expected that the additional operational emissions due to training activities under the Alternative Action would not result in any long-term impacts on the air quality of Pulaski County or AQCR 016.

#### 4.4.2.3 No Action Alternative

Under the No Action Alternative, no construction emissions would occur and the Base's operational emissions would be identical to current baseline presented in Section 3.4.2.

#### 4.4.2.4 Cumulative Impacts

Other proposed and/or ongoing activities within the ROI are expected to generate increased emissions over the short term and decreased emissions in one case, over the long-term. It is expected that emissions would decrease over the long-term as a result of the C-130J beddown, which has a more efficient engine with reduced emissions. Under the other construction activities, typical short-term construction emissions would be expected over the next several years. These emissions are typical for an active USAF base and are not atypical for LRAFB. Impacts would be temporary in nature, and would not result in any long-term impacts to the air quality of Pulaski County or AQCR 016.

### 4.5 LAND USE AND VISUAL RESOURCES

#### 4.5.1 METHODOLOGY

Land use impacts can result if an action displaces an existing use or reduces the suitability of an area for its current, designated or formally planned use. In addition, a proposed activity may be incompatible with local plans and regulations that provide for orderly development to protect the general welfare of the public, or conflict with management objectives of a federal or state agency of an affected area. Compatible land use development would need to comply with federal and state environmental laws and regulations.

To assess impacts to visual resources, areas that have high visual value or low tolerance for visible modification or have prescribed guidelines are identified. The degree to which an action would modify the existing surroundings is used to assess the level of impact.

## 4.5.2 IMPACTS

### 4.5.2.1 Proposed Action

Implementation of the Proposed Action would result in increased use of existing training infrastructure at four areas on LRAFB and at Camp Robinson. All proposed uses are consistent with existing land use patterns and land use plans as presented in the LRAFB General Plan (USAF 2001b).

Some minor physical surface changes would occur at Camp Warlord as well as the proposed MOUT Area, Secure and Defend Area, and the 4WD Confidence Course as a result of clearing vegetation and grading associated with the construction and/or upgrade of some training facilities, the maintenance of certain unimproved roadways, the construction of training props (such as observation posts/listening posts) and the further development of the MOUT area to maximize realism in the training scenarios. However, these modifications occur in an area where military training activities and cleared areas are common and are an intended component of the use of these training areas. These areas are not considered to be sensitive views and the general public would not be able to see the clearing and/or grading. As other natural areas exist on base, the alteration to the visual characteristics of the area would not likely cause an adverse impact.

### 4.5.2.2 Alternative Action

Under this alternative, no permanent facilities (except for the MOUT area) would be developed at the alternate site at the southwest end of the runway. However, minor modifications to the 4WD area would need to be accomplished to develop it into an adequate training site, requiring the use of bulldozers and graders to establish challenging terrain to develop 4WD skills. Modifications would occur in an area where military training activities and cleared areas are common and are an intended component of the use of these training areas. Any potential impacts to land uses and visual resources associated with this alternative would be approximately the same as those described under the Proposed Action.

### 4.5.2.3 No Action Alternative

Under the No Action alternative, the SF RTC would not be established at LRAFB, and land use would remain the same as described in Section 3.5.2. Additionally, there would be no alteration to the visual character of the area.

### 4.5.2.4 Cumulative Impacts

There are numerous other projects either on-going or planned at LRAFB, as described in Section 2.7. All projects listed are consistent with the Base Master Plan and existing surrounding land

uses. The long-term objective at LRAFB is to combine like activities spatially, and these projects work toward that end. There would be a general overall positive result from implementation of these projects.

## **4.6 SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE**

### **4.6.1 METHODOLOGY**

The socioeconomic analysis addresses the social and economic resources of the region and how they may be affected by project-related actions. A general, and primarily qualitative assessment was made of socioeconomic resources, as they currently exist in the area (see Section 3.6). Potential socioeconomic impacts are typically driven by proposed changes in personnel levels and/or project-related expenditures that affect local employment, population, and community resources. In the event that population or expenditure levels would be expected to change, economic multipliers would be used to determine the total economic effect of such changes. The total economic effect is then compared to the existing socioeconomic conditions in the ROI to determine the potential impacts.

### **4.6.2 IMPACTS**

#### **4.6.2.1 Proposed Action**

Under the Proposed Action, it is anticipated that staffing would remain unchanged. Construction activity would be required at LRAFB, and at Camp Warlord, specifically, to support the full development of the RTC. These specific construction projects are described in Section 2.4.4.

There would be a permanent increase of up to 50 personnel who would be the full-time training cadre at the RTC. There would be no substantial infrastructure changes as a result of this alternative. There would be a throughput of up to 2,880 trainees annually; however, the trainees would have little opportunity to travel off base due to the training schedule. Use of personal vehicles would be very limited and therefore, socioeconomic impacts in the local community would be very limited. The net result of the construction activities listed previously would be a minor short-term benefit to the local economy from construction-related purchases and other activities. These would be minor and short-term.

In order to comply with EO 12898, ethnicity and poverty status in Pulaski County were examined and compared to regional, state, and national data to determine if any minority or low-income communities could potentially be disproportionately affected by implementation of the Proposed Action. Because there are no anticipated impacts to areas surrounding LRAFB as a

result of the Proposed Action, the potential to disproportionately affect low-income or minority populations is negligible.

This proposal is not expected to produce health and safety impacts; consequently, the action would not pose any adverse or disproportionate environmental health or safety risks to children living in the vicinity of the LRAFB.

#### 4.6.2.2 Alternative Action

No construction activities would be associated with this alternative, except for the development of the MOUT area and the main tent compound, and therefore the minor short-term economic benefit to the local community as a result of construction would not occur. Other than that, socioeconomic impacts are expected to be similar as described under the Proposed Action.

#### 4.6.2.3 No Action Alternative

Under the No Action alternative, the SF RTC would not be developed at LRAFB. None of the proposed construction would occur, and no permanent cadre of instructors would be established at LRAFB. No socioeconomic impacts would be expected under this alternative. Conditions would remain as described under Section 3.6.2.

#### 4.6.2.4 Cumulative Impacts

There are several other on-going and/or proposed activities at LRAFB, as described in Section 2.7. The net result of these activities would be a minor short-term benefit to the local economy from construction-related purchases and other activities. These would be minor and short-term. No long-term cumulative impacts are expected.

### 4.7 **SOLID AND HAZARDOUS MATERIALS AND WASTE**

Hazardous materials and petroleum products, hazardous and petroleum wastes, IRP sites, and solid wastes will be discussed in this section.

#### 4.7.1 METHODOLOGY

The qualitative and quantitative assessment of impacts from hazardous materials and solid waste management focuses on how and to what degree the alternatives affect hazardous materials usage and management, hazardous waste generation and management, and waste disposal. A substantial increase in the quantity or toxicity of hazardous substances used or generated would be considered undesirable. Impacts could result if a substantial increase in human health risk or environmental exposure was generated at a level that cannot be mitigated to acceptable

standards. A substantial increase in human health risk would be one that increases the cancer risk to above  $10^{-6}$  (USEPA 1991).

Regulatory standards and guidelines have been applied in evaluating the potential impacts that may be caused by hazardous materials and wastes. The following criteria were used to identify potential impacts:

- Generation of 100 kilograms (kg) (or more) of hazardous waste or 1 kg (or more) of an acutely hazardous waste in a calendar month, resulting in increased regulatory requirements.
- A spill or release of a reportable quantity of a hazardous substance as defined by the USEPA in 40 CFR Part 302.
- Manufacture, use, or storage of a compound that requires notifying the pertinent regulatory agency according to EPCRA.
- Exposure of the environment or public to any hazardous material and/or waste through release or disposal practices.

#### 4.7.2 IMPACTS

##### 4.7.2.1 Proposed Action

###### *Hazardous Materials and Petroleum Products*

Under the Proposed Action, LRAFB would conduct construction activities associated with the establishment of the RTC. During these construction activities, diesel fuel would be stored within the RTC to fuel the bulldozers, graders, scrapers, excavators, and rollers. The fuel tanks would be stored within portable containment basins to manage any potential spills during this period.

Hazardous materials consumption would be increased through the cleaning of weapons utilized in RTC training activities. Specifically, mineral spirits would be utilized in the weapons cleaning activities. Approximately 55-gallons of mineral spirits would be used every month. The hazardous material would be issued through the HAZMART tracking system. The hazardous materials would be managed in according to existing installation procedures and no impacts are expected.



### *Hazardous and Petroleum Wastes*

The construction activities would not generate hazardous or petroleum wastes. Hazardous waste could be generated through the cleaning of weapons as described above. Specifically, cleaning rags contaminated with mineral spirits would be used to clean weapons and generated at a rate of an estimated 25 pounds per month. If managed as a hazardous waste, the rags would be managed in accordance with LRAFB's Hazardous Waste Management Plan. In addition, the generator status (as regulated by the USEPA) would not be changed through implementation of the Proposed Action. No impacts to hazardous or petroleum wastes are expected.

### *Installation Restoration Program Sites*

There are no construction or earth-disturbing activities proposed for areas in which IRP sites occur. Although IRP sites are located within the boundary of the proposed RTC, based on the locations of the IRP sites and activities proposed in these areas, IRP sites would not be impacted by the proposed construction activities or operation of the RTC.

### *Solid Waste*

The vegetation clearing and regrading in portions of the RTC would generate woody debris waste and miscellaneous debris over a short period of time. After all timber products with commercial value were sold, the remaining solid waste would be disposed of in accordance with applicable federal, state, and USAF regulations. Also, the addition of as many as 2,880 students would increase the amount of solid waste generated by LRAFB. Estimating an approximate rate of solid waste generation per person at 3.0 pounds per day (Murphy and Chatterjee 1976), an estimated 62 tons would be generated annually.

Based on the available capacity of the Two Pines Landfill, quantities of waste from the construction and operation of the RTC would not exceed landfill storage capacity. In addition, based on the average amount of waste received daily at the Two Pines Landfill (approximately 5,000 tons per day), the amount of waste generated by the establishment and operation of the RTC would reduce the life expectancy of the landfill by an estimated 0.01 days.

#### 4.7.2.2 Alternative Action

Under this alternative, permanent RTC facilities would not be constructed. An increase in the use of petroleum products would occur resulting from the operation of portable electric generators in the training area. IRP sites would not be impacted by the RTC. However, with regard to solid waste, the issues are the same as for the Proposed Action.

#### 4.7.2.3 No Action Alternative

Under this alternative, there would be no change to the current operations at LRAFB. Therefore, conditions within the ROI would continue as described in Section 3.7.2.

#### 4.7.2.4 Cumulative Impacts

There are several other on-going and/or planned projects at LRAFB, as described in Section 2.7. While ground-disturbing activities always present the potential for disturbance of previously contaminated soil, there are no known IRP sites involved in any of the planned construction sites. Should contaminated soil be encountered during these activities, the soil would be tested and properly treated in accordance with applicable laws and regulations. Demolition activities associated with the planned projects could encounter asbestos-containing material (ACM) and/or lead paint. These materials would be managed in compliance with applicable laws and USAF regulations. Cumulative impacts associated with these projects are expected to be minor.

### 4.8 CULTURAL RESOURCES

#### 4.8.1 METHODOLOGY

Cultural resources are subject to review under both Federal and state laws and regulations. Section 106 of the NHPA of 1966 empowers the ACHP to comment on federally initiated, licensed, or permitted projects affecting cultural sites listed or eligible for inclusion in the NRHP. Eligibility evaluation is the process by which resources are assessed relative to NRHP eligibility criteria. Those cultural resources determined to be eligible for the NRHP are protected under the NHPA.

Analysis of potential impacts to cultural resources considers both direct and indirect impacts. Direct impacts may occur by physically altering, damaging, or destroying all or part of a resource; altering characteristics of the surrounding environment that contribute to the resource's eligibility; introducing visual or audible elements that are out of character with the property or alter its setting; or neglecting the resource to the extent that it deteriorates or is destroyed. Direct impacts can be assessed by identifying the types and locations of proposed activities and determining the exact location of cultural resources that could be affected. Indirect impacts result primarily from the effects of project-induced population increases.

## 4.8.2 IMPACTS

### 4.8.2.1 Proposed Action

Impacts to cultural resources are not expected as a result of the Proposed Action. Although 12 archaeological sites have been identified in or near the proposed SF RTC parcels, 11 of them have been determined ineligible for listing in the NRHP (Cliff et al. 1997) and would not be adversely impacted. Site 3PU450, a possible cemetery location, is unevaluated. This site is located along the boundary of the Proposed Action area where no construction or earthmoving is planned, and would be avoided. Consultation with the SHPO has indicated that no known historic properties would be affected by this undertaking (personal communication, McCluskey 2004). In the unlikely event that archaeological resources are encountered during earthmoving, per Section 2.1 of AFI 32-7065, *Cultural Resources Management*, work would stop at that location and the resources would be managed in compliance with Section 106 of the NHPA.

Historic architectural resources would not be impacted by the Proposed Action. Proposed facility modifications at Camp Warlord would occur for three buildings constructed between 1985 and 1994. These buildings are not historic in age and do not have Cold War significance.

There are no known federally-recognized Indian lands or resources at the location of the Proposed Action, and the action is not considered to have “the potential to significantly affect Indian lands, treaty rights, or other tribal interests” as identified in DoD American Indian and Alaska Native Policy (1999). The tribal contact letter is contained in Appendix A.

### 4.8.2.2 Alternative Action

Impacts to cultural resources are not expected as a result of the Alternative Action. The four archaeological resources within the Alternative Action location have all been determined ineligible for listing in the NRHP. No historic buildings or traditional resources would be impacted under the Alternative Action.

### 4.8.2.3 No Action Alternative

No impacts to cultural resources are expected under the No Action alternative. The resources would continue to be managed in compliance with Federal law and USAF regulation. Cultural resources would remain as described in Section 3.8.

### 4.8.2.4 Cumulative Impacts

There are several other activities either currently underway, or planned over the short-term at within the ROI. There are seven archaeological resources associated with the LRAFB Clear

Zone project, which have all been determined to be ineligible for the NRHP. Nevertheless, these resources will be avoided to the extent possible. In the unlikely event that archaeological resources were encountered during earthmoving associated with any of these activities, per Section 2.1 of AFI 32-7065, *Cultural Resources Management*, work would stop at that location and the resources would be managed in compliance with Section 106 of the NHPA. Cumulative impacts to cultural resources are not expected.

## **4.9 SAFETY**

### **4.9.1 METHODOLOGY**

This section discusses potential safety effects resulting from the Proposed Action and alternative. Impacts are assessed according to the potential to increase or decrease safety risks to ground personnel, the public, and property. Proposal-related activities are considered to determine if additional or unique ground or explosive safety risks are associated with their undertaking. If any proposal-related activity indicated a major variance from existing conditions, it would be considered a substantial safety impact.

### **4.9.2 IMPACTS**

#### **4.9.2.1 Proposed Action**

Activities involved in the proposed development and use of a SF RTC are not unique. Facility construction, development of the required training infrastructure, and the conduct of planned training would be similar to other MAJCOM training centers performing the same mission.

During RTC construction activities described in Section 2.4.4, standard building and construction procedures and BMPs would be followed by the construction contractor(s). During construction and use of the RTC, all federal and state occupational safety and health requirements would be met.

Implementation of this proposal would involve ground activities that may expose workers building the facility to some risk. The U.S. Department of Labor (DOL), Bureau of Labor Statistics maintains data analyzing fatal and non-fatal occupational injuries based on occupation. Due to the varying range of events classified as non-fatal injuries, the considerations described below focus on fatal injuries since they are the most catastrophic. Data are categorized as incidence rates per 100,000 workers employed (on an annual average) in a specific industry [Standard Industrial Code (SIC)].

To assess relative risk associated with building the proposed facilities, it was assumed that the industrial classifications of workers involved are the Construction Trades (SIC-15, 16, and 17).

Based on DOL data and considerations of worker exposure, 11.6 to 15.3 workers per 100,000 employed would be statistically predicted to sustain a fatal injury per year, depending on the specific labor classification. This equates to a probability of a fatal injury of from 1.16 to 1.53 out of 10,000 (DOL 2003). Although DoD guidelines for assessing risk hazards would categorize the hazard category as “catastrophic” (since a fatality would be involved), the expected frequency of the occurrence would be considered “remote” (MIL-STD-882). While the potential result must be considered undesirable, risk is low. Strict adherence to all applicable occupational safety requirements would further minimize the relatively low risk associated with these construction and demolition activities.

Training that would be conducted at the RTC would involve some ground safety considerations. SF training and exercises would involve ground movement of personnel. Participants would have the potential to be exposed to insects, reptiles, plants, rough terrain, and other environmental conditions that could be harmful. The 4WD training course would expose drivers to some road conditions that could be hazardous. However, these risks are inherent in these required training elements, and are not an uncommon component of military training. Although risk is present, the experience and supervision of the instructional staff would minimize the potential for serious injury or death.

Operation of the RTC involves the use of ordnance. During exercises on LRAFB, only blank ammunition and small pyrotechnic training devices would be used. The only live ammunition involved in the RTC’s operation is small arms ammunition which would be used during small arms re-certification at the ranges on Camp Robinson. When required, weapons and ammunition to be used in re-certification would be moved by road from LRAFB to Camp Robinson in a vehicle specifically designed for such transport. The transit to Camp Robinson is approximately 10 miles. Thus exposure is brief and explosive safety risks are minimal.

#### 4.9.2.2 Alternative Action

Under the Alternative Action, the SF RTC would be developed in an alternate location on LRAFB (Refer to Figure 2.5-1). This area is in a currently undeveloped area of LRAFB, and no permanent facilities would be built in the area except for the MOUT area. Under this alternative, the majority of the heavy construction activities would not be accomplished. Therefore, worker exposure to those risks would not occur. All other safety issues discussed for the Proposed Action would be expected to be the same as those associated with this alternative. Overall, safety risks remain minimal.

#### 4.9.2.3 No Action Alternative

Under the No Action alternative, the proposed new SF RTC would not be developed. Required training for SF would continue to be conducted on an as-available basis using other MAJCOM training centers. Safety considerations on LRAFB would be unchanged from current conditions.

#### 4.9.2.4 Cumulative Impacts

There are a number of other on-going and/or proposed projects at, and in the immediate vicinity of LRAFB, as described in Section 2.7. All these projects contain a short-term construction component in which a similar accident rate as described above would be expected. There is always a possibility of construction-related accidents; however, as described above, the probability of a very serious accident occurring is considered to be remote. The long-term effect of the several projects that are planned would have the net effect of improving the overall safety of LRAFB.

### 4.10 INFRASTRUCTURE

#### 4.10.1 METHODOLOGY

Level of service (LOS) is the primary transportation and utility service issue. Criteria for evaluating impacts to transportation and utility service include potential for disruption and/or permanent degradation of the resource. The ROI for the proposal as it relates to infrastructure is the area surrounding and including the airfield that may be directly impacted by construction activities.

#### 4.10.2 IMPACTS

##### 4.10.2.1 Proposed Action

There would be a slight increase in vehicular traffic from the establishment and operation of the RTC at LRAFB. Although the average daily student load would increase, no additional personal vehicle trips would be anticipated by the students because they would not have authorization for the use of personal vehicles while in training. In addition, increases in traffic at LRAFB would be limited to the transportation of students to and from the RTC area. Increases of traffic associated with the development of the MOUT training area and 4WD confidence course would increase vehicle operations in those specific areas, but would not impact other regions of the installation.

Based on an estimated average consumption of 75 gallons per person per day, 230 days per year, the additional students would require about 3,105,000 gallons of potable water per year, or 0.014

mgd. As discussed in Section 3.10.2, the design capacity is 10 mgd with an average daily usage of 4 mgd. The increase in demand would be well within the City of Jacksonville's permitted system design capacity of 10 mgd.

Based on a total average wastewater generation rate of 50 gallons per person per day, 230 days per year, the additional students would generate about 2,070,000 gallons of potable water per year, or 0.009 mgd. As discussed in Section 3.10.2, the design capacity is 12 mgd, with an average daily usage of 5 mgd. This increase would be well within the City of Jacksonville's permitted system design capacity of 12 mgd.

Establishment of the RTC at LRAFB would increase electricity and natural gas consumption. The electrical system has adequate capacity/supply to accommodate the increases without requiring upgrades to the existing systems (personal communication, Bryan 2004). Depending on the final design of the RTC facilities, the existing 2-inch natural gas line may not meet demand. If necessary, LRAFB would reconfigure the 2-inch line to connect to an existing 3-inch line located about 7,200 feet from the proposed facility. Trenching along the 7,200 feet would be required for line upgrade. Pressure supplied to the line varies with the time of year, 25 psi during the summer and 42 psi during winter months (personal communication, Baker 2004).

In general, as described above, minor increases in infrastructure demands would be anticipated as a result of the addition of up to 2,880 SF RTC trainees per year under the proposal. However, these increases would be within the existing capabilities of the systems.

#### 4.10.2.2 Alternative Action

Under this alternative, permanent RTC facilities would not be constructed. Electrical power would be provided by mobile electrical generators. Portable sanitary facilities would be provided for students training in the area and wastewaters generated by trainees would be disposed by the contractor providing the temporary facilities. Natural gas consumption would remain at baseline conditions. However, with regard to solid waste and potable water, the issues are the same for this alternative as for the Proposed Action.

Impacts to transportation would be similar to those described for the Proposed Action. Specifically, increases of traffic associated with the development of the MOUT training area and 4WD confidence course would increase vehicle operations in those specific areas. In addition, transportation of the students to the MOUT training area and 4WD confidence course would be required. The additional trips would be minimal and would not impact LOS on LRAFB.

#### 4.10.2.3 No Action Alternative

No impacts would be anticipated to utilities or transportation facilities under the No Action alternative. Conditions would continue as described in Section 3.10.2.

#### 4.10.2.4 Cumulative Impacts

There are other on-going and/or proposed activities at LRAFB, as described in Section 2.7. The net result of these activities could be a minor short-term disruption in terms of transportation and circulation around the base given that construction activities could temporarily alter traffic flow. However, long-term impacts should result in improved transportation and circulation throughout the base because all on-going and/or proposed projects are components of the base Master Plan. There could be a similar brief disruption to utility services over the short-term, but long-term impacts would be expected to be similarly positive.



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**APPENDIX A**  
**INTERAGENCY AND INTERGOVERNMENTAL COORDINATION FOR**  
**ENVIRONMENTAL PLANNING (IICEP)**

INTERAGENCY, INTERGOVERNMENTAL COORDINATION FOR ENVIRONMENTAL PLANNING (IICEP)  
SECURITY FORCES REGIONAL TRAINING CENTER AT LITTLE ROCK AIR FORCE BASE, AR

EPA Region 6  
Compliance Assurance and Enforcement  
Division  
Office of Planning and Coordination (6EN-XP)  
1445 Ross Avenue  
Dallas, Texas 75202-2733  
Main Office Phone: (214) 665-8150  
Fax: (214) 665-7446  
<http://www.epa.gov/earth1r6/6en/xp/enxp1.htm>

U.S. Fish and Wildlife Service  
Southeast Region 4  
Ecological Services Field Office  
Allan J. Mueller  
Field Supervisor  
1500 Museum Road  
Conway, AR 72032  
Phone: (501) 513-4470  
Fax: (501) 513-4480  
E-mail: [FW4\\_ES\\_Conway@fws.gov](mailto:FW4_ES_Conway@fws.gov)

Southeast Region  
Regional Director  
National Park Service  
100 Alabama St. SW  
1924 Building  
Atlanta, GA 30303  
Phone: (404) 562-3100

Arkansas Soil and Water Conservation  
Commission  
101 East Capitol, Suite 350  
Little Rock, AR 72201  
Phone: (501) 682-1611  
Fax: (501) 682-3991  
<http://www.state.ar.us/aswcc/>

State of Arkansas Department of Environmental  
Quality  
Marcus C. Devine, Director  
8001 National Drive  
Little Rock, AR 72209  
Phone: (501) 682-0744  
<http://www.adeq.state.ar.us/>

Natural Resources Conservation Service  
State Conservationist's Office  
Room 3416 Federal Bldg 700 W. Capitol Ave.  
Little Rock, AR 72201-3225  
Phone: (501) 301 3100  
Fax: (501) 301 3194  
<http://www.ar.nrcs.usda.gov/>

Arkansas Geological Commission  
William V. Bush, Director and State Geologist  
Vardelle Parham Geology Center  
3815 West Roosevelt Road  
Little Rock, AR 72204  
Phone: (501) 296-1877  
Fax: (501) 663-7360  
<http://www.state.ar.us/agc/agc.htm>

Arkansas State Historic Preservation Office  
1500 Tower Building,  
323 Center Street  
Little Rock, AR 72201  
Phone: (501) 324-9880  
Fax: (501) 324-9184  
[info@arkansaspreservation.org](mailto:info@arkansaspreservation.org)

U.S. Army Corps of Engineers  
Little Rock District  
Planning, Environmental and Regulatory  
Division  
700 W. Capitol Avenue, P.O. Box 867  
Little Rock, AR 72203-0867  
Phone: (501) 324-5295  
Fax: (501) 324-6013  
<http://www.swl.usace.army.mil/index.html>

Arkansas Game & Fish Commission  
AGFC Headquarters  
2 Natural Resources Drive  
Little Rock, AR 72205  
Phone: (501) 223-6300  
<http://www.agfc.state.ar.us/>

Arkansas State Plant Board  
1 Natural Resource Drive  
Little Rock, AR 72205  
<http://www.plantboard.org/>

INTERAGENCY, INTERGOVERNMENTAL COORDINATION FOR ENVIRONMENTAL PLANNING (IICEP)  
SECURITY FORCES REGIONAL TRAINING CENTER AT LITTLE ROCK AIR FORCE BASE, AR

Arkansas Department of Parks and Tourism  
One Capitol Mall  
Little Rock, AR 72201  
Phone: (501) 682-7777  
<http://arkansasstateparks.com/>

Metroplan  
501 W. Markham St., Suite B  
Little Rock, AR 72201  
Phone: (501) 372-3300  
Fax: (501) 372-8060  
<http://www.metroplan.org/>

Jim Lawson - Director  
Department of Planning and Development  
723 West Markham  
Little Rock, AR 72201  
Phone: (501) 371-4790  
Fax: (501) 371-6863  
[http://www.accesslittlerock.org/departments/planning\\_development\\_p1.html](http://www.accesslittlerock.org/departments/planning_development_p1.html)

Pulaski County, Arkansas  
Planning and Development  
501 S. Broadway, Suite A  
Little Rock, AR 72201  
Phone: (501) 340-8260  
<http://www.co.pulaski.ar.us/d3100p01.htm> \

Arkansas Department of Finance and  
Administration  
Office of Intergovernmental Services  
State Clearinghouse Section  
Room 412, 1515 Building  
1515 West Seventh Street  
Little Rock, Arkansas 72201  
P. O. Box 3278  
Little Rock, Arkansas 72203  
Manager: Tracy Copeland  
E-mail - [tracy.copeland@dfa.state.ar.us](mailto:tracy.copeland@dfa.state.ar.us)  
Phone (501) 682-1074  
FAX (501) 682-5206

The Department of Arkansas Heritage  
1500 Tower Building  
323 Center Street  
Little Rock, Arkansas 72201  
Phone (501) 324-9150  
<http://www.arkansasheritage.com/>

Quapaw Tribe of Oklahoma  
Tamara Martin, Chairman  
P.O. Box 765  
Quapaw, OK 74363  
Phone: (918) 542-1853  
Fax: (918) 542-4694  
E-mail: [quapaw@eighttribes.org](mailto:quapaw@eighttribes.org)  
<http://www.geocities.com/Athens/Aegean/1388/>



## DEPARTMENT OF THE AIR FORCE

HEADQUARTERS 314TH AIRLIFT WING (AETC)  
LITTLE ROCK AIR FORCE BASE, ARKANSAS

314 CES/CEVA  
528 Thomas Avenue  
Little Rock AFB, AR 72099-4987

EPA Region 6  
Compliance Assurance and Enforcement Division  
Office of Planning and Coordination (6EN-XP)  
1445 Ross Avenue  
Dallas, TX 75202-2733

Dear Sir/Madame,

The United States Air Force is preparing an Environmental Assessment (EA) for a proposal to establish a Security Forces Regional Training Center at Little Rock Air Force Base (LRAFB). Attachment A to this memorandum describes the proposal and the alternatives being analyzed, including the No Action Alternative. We will forward the Draft EA in its entirety for your review within the next couple of months; however, we are soliciting any comments or concerns regarding the proposal you may have at this time so that we might incorporate them into our analysis in a proactive manner.

The environmental analysis for the Proposed Action is being conducted by LRAFB in accordance with the Council on Environmental Quality guidelines pursuant to the National Environmental Policy Act of 1969. In accordance with Executive Order 12372, Intergovernmental Review of Federal Programs, we request your participation by reviewing this memo describing the proposed action and alternatives, and solicit your comments concerning the proposal and any potential environmental consequences of the action. A listing of Federal and state agencies that have been contacted is attached (Attachment B). If there are any additional agencies that you feel should review and comment on the proposal or the Draft EA, please let us know. To facilitate cumulative impact analysis, we would also appreciate identification of major projects in the vicinity that may contribute to cumulative impacts. Please return your comments to our consultant within 30 days of receipt.

Any questions concerning the proposal should be directed to our consultant, Science Applications International Corporation (SAIC). The point of contact at SAIC is Ms. Kate L. Bartz. She can be reached at (520) 326-0951. Please forward your written comments to Ms. Bartz, in care of SAIC, at 2617 East 7<sup>th</sup> Street, Tucson, Arizona 85716. Thank you for your assistance.

Sincerely,

Ronald Love, REM  
Chief, Environmental Programs & Analysis

Attachments



# Arkansas GEOLOGICAL COMMISSION

VARDELLE PARHAM GEOLOGY CENTER • 3815 WEST ROOSEVELT ROAD • LITTLE ROCK, ARKANSAS 72204

Mike Huckabee  
Governor

Mac B. Woodward  
Director and State Geologist

February 11, 2004

Ms. Kate L. Bartz  
SAIC  
2617 East 7<sup>th</sup> Street  
Tucson, Arizona 85717

Dear Ms. Bartz:

This letter is a response to a request for comments on 2 proposed locations for a Security Forces Regional Training Center at the Little Rock Air Force Base (LRAFB). The following comments pertain to the geology of the sites.

The western site is located on Pennsylvanian bedrock of the Lower Atoka Formation. This formation is composed of black shale and sandstone. The ridges that run east to west in the base are composed of sandstone. There is an east to west thrust fault along the northern boundary of the western site. This fault is considered to be inactive.

The eastern site is divided by a thrust fault that runs east to west. The northern 2/3 of the site is located on bedrock of the Middle Atoka. This unit is also composed of shale and sandstone. South of the thrust the southern 1/3 of the eastern site is on bedrock of the sandstone and shale of the Lower Atoka. The thrust fault in this area is also considered to be inactive.

If you have any questions about these comments please feel free to contact me.

Sincerely,

William Lee Prior  
Geologist Supervisor



# The Department of Arkansas Heritage

Mike Huckabee, Governor  
Cathie Matthews, Director

Arkansas Arts Council  
Arkansas Natural Heritage  
Commission  
Historic Arkansas Museum  
Delta Cultural Center  
Old State House Museum



## Arkansas Historic Preservation Program

1500 Tower Building  
323 Center Street  
Little Rock, AR 72201  
(501)324-9880  
fax: (501)324-9184  
tdd: (501)324-9811  
e-mail:  
info@arkansaspreservation.org  
website:  
www.arkansaspreservation.org

February 10, 2004

Ms. Kate L. Bartz  
Science Applications International Corporation  
2617 East 7<sup>th</sup> Street  
Tucson, Arizona 85716

RE: Pulaski County - North Little Rock  
Section 106 Review - USAF; AHPP Tracking#52623  
Proposed LRAFB EA Security Forces Regional Training  
Center

Dear Ms. Bartz:

This letter is written in response to your inquiry, regarding properties of architectural, historical, or archeological significance in the area of the proposed referenced project.

In order for the Arkansas Historic Preservation Program (AHPP) to complete its review of the proposed project, we will need the additional information checked below:

✓ a 7.5 minute 1:24,000 scale U.S.G.S. topographic map clearly delineating the project area;

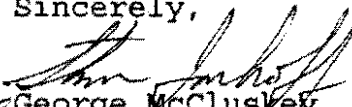
\_\_\_ a project description detailing all aspects of the proposed project;

\_\_\_ the location, age, and photographs of structures (if any) to be renovated, removed, demolished, or abandoned as a result of this project;

\_\_\_ photographs of any structures 50 years old or older on property directly adjacent to the project area.

Once we have received the above information, we will complete our review as expeditiously as possible. If you have any questions, please contact me at (501) 324-9880.

Sincerely,

  
FOR George McCluskey  
Section 106 Review Coordinator

An Equal Opportunity Employer






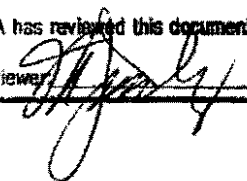
# DEPARTMENT OF THE AIR FORCE

HEADQUARTERS 314TH AIRLIFT WING (AETC)  
LITTLE ROCK AIR FORCE BASE, ARKANSAS

FEB 07 2004

314 CES/CEVA  
528 Thomas Avenue  
Little Rock AFB, AR 72099-4987

EPA Region 6  
Compliance Assurance and Enforcement Division  
Office of Planning and Coordination (6EN-XP)  
1445 Ross Avenue  
Dallas, TX 75202-2733

	<b>U.S. Environmental Protection Agency</b> Region 6 Office of Planning & Coordination (EN-XP) 1445 Ross Avenue Dallas, Texas 75202-2733
EPA has reviewed this document and has no comments.	
Reviewer: 	Date: 2/11/04

Dear Sir/Madame,

The United States Air Force is preparing an Environmental Assessment (EA) for a proposal to establish a Security Forces Regional Training Center at Little Rock Air Force Base (LRAFB). Attachment A to this memorandum describes the proposal and the alternatives being analyzed, including the No Action Alternative. We will forward the Draft EA in its entirety for your review within the next couple of months; however, we are soliciting any comments or concerns regarding the proposal you may have at this time so that we might incorporate them into our analysis in a proactive manner.

The environmental analysis for the Proposed Action is being conducted by LRAFB in accordance with the Council on Environmental Quality guidelines pursuant to the National Environmental Policy Act of 1969. In accordance with Executive Order 12372, Intergovernmental Review of Federal Programs, we request your participation by reviewing this memo describing the proposed action and alternatives, and solicit your comments concerning the proposal and any potential environmental consequences of the action. A listing of Federal and state agencies that have been contacted is attached (Attachment B). If there are any additional agencies that you feel should review and comment on the proposal or the Draft EA, please let us know. To facilitate cumulative impact analysis, we would also appreciate identification of major projects in the vicinity that may contribute to cumulative impacts. Please return your comments to our consultant within 30 days of receipt.

Any questions concerning the proposal should be directed to our consultant, Science Applications International Corporation (SAIC). The point of contact at SAIC is Ms. Kate L. Bartz. She can be reached at (520) 326-0951. Please forward your written comments to Ms. Bartz, in care of SAIC, at 2617 East 7<sup>th</sup> Street, Tucson, Arizona 85716. Thank you for your assistance.

Sincerely,



Ronald Love, REM  
Chief, Environmental Programs & Analysis

Attachments



ARKANSAS  
Department of Environmental Quality

March 3, 2004

Ms. Kate L. Bartz  
Science Applications International Corporation  
2617 East 7<sup>th</sup> Street  
Tucson, Arizona 85716

RE: Description of the Proposed Action and Alternatives for a Security Forces Regional  
Training Center at Little Rock Air Force Base

Dear Ms. Bartz:

The Arkansas Department of Environmental Quality (ADEQ) and Environmental Preservation  
Division staff has reviewed the information submitted in the referenced preparation for an  
Environmental Assessment.

We have no comments on your plan.

If you have any questions or concerns, please contact Audree Miller at (501) 682-0015.

Sincerely,

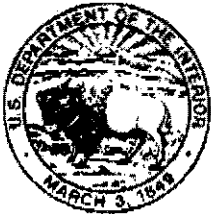
A handwritten signature in cursive script, appearing to read "Sandi Formica".

Sandi Formica  
Chief, Environmental Preservation Division

SF:MVE:AM:am

cc: Mary Leath, Deputy Director  
Martin Mancr, Water Division  
Dennis Green, Hazardous Waste Division





IN REPLY REFER TO

## United States Department of the Interior

### FISH AND WILDLIFE SERVICE

1500 Museum Road, Suite 105

Conway, Arkansas 72032

Tel.: 501/513-4470 Fax: 501/513-4480

March 18, 2004

Ms. Kate L. Bartz  
c/o SAIC  
2617 E. 7<sup>th</sup> St.  
Tucson, AZ 85716

Dear Ms. Bartz:

The U.S. Fish and Wildlife Service (Service) has reviewed the description of the proposed action alternatives in preparation of an Environmental Assessment (EA) for the construction of a Security Forces Regional Training Center at Little Rock Air Force Base (LRAFB) in Jacksonville, Arkansas. Our comments and recommendations are submitted in accordance with the Endangered Species Act of 1973 (Public Law 93-205, as amended) and the Fish and Wildlife Coordination Act (Public Law 85-624; 16 U.S.C. 661-666e.).

According to our records, there are no federally listed or proposed threatened and endangered species occurring in the impact area of the project. Therefore, no further consultation regarding Section 7 of the Endangered Species Act is required. Furthermore, the Service has no additional comments or concerns regarding this project at this time. If you have any questions, please contact Lindsey Lewis in our office at (501) 513-4489.

Sincerely,

Margaret Harney  
Environmental Coordinator

Feb 24 04 12:32p

P.2



## The Department of Arkansas Heritage

Mike Huckabee, Governor  
Cathie Matthews, Director

Arkansas Arts Council  
Arkansas Natural Heritage  
Commission

Historic Arkansas Museum

Delta Cultural Center

Old State House Museum



### Arkansas Historic Preservation Program

1500 Tower Building  
323 Center Street  
Little Rock, AR 72201  
(501)324-9880  
Fax: (501)324-9184  
tdd: (501)324-9811  
e-mail:  
info@arkansaspreservation.org  
website:  
www.arkansaspreservation.org

An Equal Opportunity Employer



# AHPP

## MAR 03 2004

### 52623

### USAF

February 10, 2004

Ms. Kate L. Bartz  
Science Applications International Corporation  
2617 East 7<sup>th</sup>. Street  
Tucson, Arizona 85716

RE: Pulaski County - North Little Rock  
Section 106 Review - USAF; AHPP Tracking#52623  
Proposed LRAFB EA Security Forces Regional Training  
Center

Dear Ms. Bartz:

This letter is written in response to your inquiry, regarding properties of architectural, historical, or archeological significance in the area of the proposed referenced project.

In order for the Arkansas Historic Preservation Program (AHPP) to complete its review of the proposed project, we will need the additional information checked below:

✓ a 7.5 minute 1:24,000 scale U.S.G.S. topographic map clearly delineating the project area;

a project description detailing all aspects of the proposed project;

the location, age, and photographs of structures (if any) to be renovated, removed, demolished, or abandoned as a result of this project;

photographs of any structures 50 years old or older on property directly adjacent to the project area.

Once we have received the above information, we will complete our review as expeditiously as possible. If you have any questions, please contact me at (501) 324-9880.

Sincerely,

*George McCluskey*  
George McCluskey  
Section 106 Review Coordinator

Date: 3/4/04

No known historic properties will be affected by the undertaking. This effect determination could change should new information come to light.

Ken Grunwald  
Deputy State Historic Preservation Officer

SECRET



## DEPARTMENT OF THE AIR FORCE

HEADQUARTERS 314TH AIRLIFT WING (AETC)  
LITTLE ROCK AIR FORCE BASE, ARKANSAS

APR 23 2004

314 CES/CEVA  
528 Thomas Avenue  
Little Rock AFB, AR 72099-4987

Regional Director  
National Park Service  
Southeast Region 4  
100 Alabama St. SW  
1924 Building  
Atlanta, GA 30303

Dear Sir/Madame,

Little Rock Air Force Base (LRAFB) has prepared an Environmental Assessment (EA) for a proposal to establish a Security Forces Regional Training Center at LRAFB. We previously provided your agency with a detailed description of the proposal and a request for initial comments and concerns. We appreciate your participation in this process and request that you now review the DEA, which can be found as an attachment to this memorandum.

The environmental analysis for the Proposed Action has been conducted by LRAFB in accordance with the Council on Environmental Quality guidelines pursuant to the National Environmental Policy Act of 1969. In accordance with Executive Order 12372, Intergovernmental Review of Federal Programs, we request your participation by reviewing this EA, and solicit your comments concerning the proposal and any potential environmental consequences of the action. A listing of Federal and state agencies that have been contacted is attached. If there are any additional agencies that you feel should review and comment on the Draft EA, please let us know. Please return your comments to our consultant within 30 days of receipt.

Any questions concerning the proposal should be directed to our consultant, Science Applications International Corporation (SAIC). The point of contact at SAIC is Ms. Kate L. Bartz. She can be reached at (520) 326-0951. Please forward your written comments to Ms. Bartz, in care of SAIC, at 2617 East 7<sup>th</sup> Street, Tucson, Arizona 85716. Thank you for your assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "Ron Love".

Ron Love, REM  
Chief, Environmental Programs & Analysis

Attachments



STATE OF ARKANSAS

OFFICE OF INTERGOVERNMENTAL SERVICES

**Department of Finance  
and Administration**

1515 West Seventh Street, Suite 412  
Post Office Box 8031  
Little Rock, Arkansas 72203-8031  
Phone: (501) 682-1074  
Fax: (501) 682-5206  
<http://www.state.ar.us/dfa>

**MEMORANDUM**

TO: All Technical Review Committee Members

FROM: Tracy L. Copeland, ~~Manager~~ <sup>TLC</sup> - State Clearinghouse

DATE: April 27, 2004

SUBJECT: (FINAL DRAFT)-ENVIRONMENTAL ASSESSMENT-SECURITY FORCES REGIONAL TRAINING  
CENTER AT LITTLE ROCK AIR FORCE BASE ARKANSAS

Please review the above stated document under provisions of Section 404 of the Clean Water Act, Section 102(2) of the National Environmental Policy Act of 1969 and the Arkansas Project Notification and Review System.

Your comments should be returned by MAY 18, 2004 to - Mr. Randy Young, Chairman, Technical Review Committee, 101 E. Capitol, Suite 350, Little Rock, AR 72203.

**IF you have no reply within that time we will assume you have no comments and will proceed with the sign-off.**

NOTE: It is imperative that your response be in to the ASWCC office by the date requested. Should your Agency anticipate having a response which will be delayed beyond the stated deadline for comments, please contact Ms. Debby Davis of the ASWCC at (501) 682-1611 or the State Clearinghouse Office.

☐ Support ☐ Do Not Support (Comments Attached)

☐ Comments Attached ☐ Support with Following Conditions

☒ No Comments ☐ Non-Degradation Certification Issues  
(Applies to ADEQ Only)

**RECEIVED**

**MAY 10 2004**

INTERGOVERNMENTAL  
SERVICES  
STATE CLEARINGHOUSE

Name(print) John L. Harris Agency AHTD Date 5/5/04

Telephone Number (501) 569-2281



STATE OF ARKANSAS

Department of Finance  
and Administration

OFFICE OF INTERGOVERNMENTAL SERVICES

1515 West Seventh Street, Suite 412  
Post Office Box 8031  
Little Rock, Arkansas 72203-8031  
Phone: (501) 682-1074  
Fax: (501) 682-5205  
<http://www.state.ar.us/dfo>

**MEMORANDUM**

TO: All Technical Review Committee Members

FROM: Tracy L. Copeland, *TRC* Manager - State Clearinghouse

DATE: April 27, 2004

SUBJECT: (FINAL DRAFT)-ENVIRONMENTAL ASSESSMENT-SECURITY FORCES REGIONAL TRAINING CENTER AT LITTLE ROCK AIR FORCE BASE ARKANSAS

Please review the above stated document under provisions of Section 404 of the Clean Water Act, Section 102(2) of the National Environmental Policy Act of 1969 and the Arkansas Project Notification and Review System.

Your comments should be returned by MAY 18, 2004 to - Mr. Randy Young, Chairman, Technical Review Committee, 101 E. Capitol, Suite 350, Little Rock, AR 72203.

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☐ Support

☐ Comments Attached

☒ No Comments

☐ Do Not Support (Comments Attached)

☐ Support with Following Conditions

☐ Non-Degradation Certification Issues  
(Applies to ADEQ Only)

RECEIVED  
04 APR 30 PM 12:40  
SOIL & WATER CONSERVATION

Name (print) TERESA BARNES Agency COSL 4/29/04

Telephone Number 683-3310



STATE OF ARKANSAS

# Department of Finance and Administration

OFFICE OF INTERGOVERNMENTAL SERVICES

1515 West Seventh Street, Suite 412  
Post Office Box 8031  
Little Rock, Arkansas 72203-8031  
Phone: (501) 682-1074  
Fax: (501) 682-6206  
<http://www.state.ar.us/cfa>

## MEMORANDUM

TO: Ali Technical Review Committee Members

FROM: Tracy L. Copeland <sup>TRC</sup> Manager - State Clearinghouse

DATE: April 27, 2004

SUBJECT: (FINAL DRAFT)-ENVIRONMENTAL ASSESSMENT-SECURITY FORCES REGIONAL TRAINING CENTER AT LITTLE ROCK AIR FORCE BASE ARKANSAS

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Your comments should be returned by MAY 18, 2004 to - Mr. Randy Young, Chairman, Technical Review Committee, 101 E. Capitol, Suite 350, Little Rock, AR 72203

If you have no reply within that time we will assume you have no comments and will proceed with the sign-off.

NOTE: It is Imperative that your response be in to the ASWCC office by the date requested. Should your Agency anticipate having a response which will be delayed beyond the stated deadline for comments, please contact Ms. Debby Davis of the ASWCC at (501) 682-1611 or the State Clearinghouse Office.

☐ Support ☐ Do Not Support (Comments Attached)

☐ Comments Attached ☐ Support with Following Conditions

☒ No Comments ☐ Non-Degradation Certification Issues (Applies to ADEQ Only)

RECEIVED  
04 MAY - 31 AM 9-08  
SOIL & WATER ECHO

Name (print) Herald Seifert Division of Engineering Date 4-28-04  
Telephone Number 501-641-2623 Arkansas Department of Health  
4815 West Markham  
Little Rock, AR 72205-3867



STATE OF ARKANSAS

OFFICE OF INTERGOVERNMENTAL SERVICES

**Department of Finance  
and Administration**

1515 West Seventh Street, Suite #12  
Post Office Box 8031  
Little Rock, Arkansas 72203-8031  
Phone: (501) 682-1074  
Fax: (501) 682-5206  
<http://www.state.ar.us/dfa>

**MEMORANDUM**

TO: All Technical Review Committee Members

FROM: Tracy L. Copeland ~~Manager~~ - State Clearinghouse

DATE: April 27, 2004

SUBJECT: (FINAL DRAFT)-ENVIRONMENTAL ASSESSMENT-SECURITY FORCES LOGISTICAL TRAINING CENTER AT LITTLE ROCK AIR FORCE BASE ARKANSAS

RECEIVED  
04 MAY - 6 AM 11:59  
SOIL & WATER CONTA.

Please review the above stated document under provisions of Section 404 of the Clean Water Act, Section 102(2) of the National Environmental Policy Act of 1969 and the Arkansas Project Notification and Review System.

Your comments should be returned by MAY 18, 2004 to - Mr. Randy Young, Chairman, Technical Review Committee, 101 E. Capitol, Suite 350, Little Rock, AR 72203.

IF you have no reply within that time we will assume you have no comments and will proceed with the sign-off.

NOTE: It is imperative that your response be in to the ASWCC office by the date requested. Should your Agency anticipate having a response which will be delayed beyond the stated deadline for comments, please contact Ms. Debby Davis of the ASWCC at (501) 682-1611 or the State Clearinghouse Office.

<input type="checkbox"/> Support	<input type="checkbox"/> Do Not Support (Comments Attached)
<input type="checkbox"/> Comments Attached	<input type="checkbox"/> Support with Following Conditions
<input checked="" type="checkbox"/> No Comments	<input type="checkbox"/> Non-Degradation Certification Issues (Applies to ADEQ Only)

Name(print) Steve Jones Agency ADED Date 5-3-04  
Telephone Number 501-682-7311



STATE OF ARKANSAS

OFFICE OF INTERGOVERNMENTAL SERVICES

# Department of Finance and Administration

1515 West Seventh Street, Suite 412  
Post Office Box 8031  
Little Rock, Arkansas 72203-8031  
Phone: (501) 682-1074  
Fax: (501) 682-5206  
http://www.state.ar.us/dfa

## MEMORANDUM

TO: All Technical Review Committee Members

FROM: Tracy L. Copeland *TLC* Manager - State Clearinghouse

DATE: April 27, 2004

SUBJECT: (FINAL DRAFT)-ENVIRONMENTAL ASSESSMENT-SECURITY FORCES REGIONAL TRAINING CENTER AT LITTLE ROCK AIR FORCE BASE ARKANSAS

RECEIVED  
04 MAY 12 AM 11:08  
SOIL & WATER COM.

Please review the above stated document under provisions of Section 404 of the Clean Water Act, Section 102(2) of the National Environmental Policy Act of 1969 and the Arkansas Project Notification and Review System.

Your comments should be returned by MAY 18, 2004 to - Mr. Randy Young, Chairman, Technical Review Committee, 101 E. Capitol, Suite 350, Little Rock, AR 72203.

IF you have no reply within that time we will assume you have no comments and will proceed with the sign-off.

NOTE: It is Imperative that your response be in to the ASWCC office by the date requested. Should your Agency anticipate having a response which will be delayed beyond the stated deadline for comments, please contact Ms. Debby Davis of the ASWCC at (501) 682-1611 or the State Clearinghouse Office.

<input checked="" type="checkbox"/> Support	<input type="checkbox"/> Do Not Support (Comments Attached)
<input type="checkbox"/> Comments Attached	<input type="checkbox"/> Support with Following Conditions
<input type="checkbox"/> No Comments	<input type="checkbox"/> Non-Degradation Certification Issues (Applies to ADEQ Only)

Name(print) JAMES L. MONTGOMERY Agency WAFB Date 11 May

Telephone Number 501-291-1812



4-87

RECEIVED

MAY 03 2004



STATE OF ARKANSAS

Outdoor  
Inspection Group

Department of Finance  
and Administration

OFFICE OF INTERGOVERNMENTAL SERVICES

515 West Seventh Street, Suite 412  
Post Office Box 8031  
Little Rock, Arkansas 72203-8031  
Phone (501) 682-1074  
Fax (501) 682-5208  
http://www.state.ar.us/dfa

MEMORANDUM

TO: All Technical Review Committee Members

FROM: Tracy L. Copeland *TLC* Manager - State Clearinghouse

DATE: April 27, 2004

SUBJECT: (FINAL DRAFT)-ENVIRONMENTAL ASSESSMENT-SECURITY FORCES NATIONAL TRAINING  
CENTER AT LITTLE ROCK AIR FORCE BASE ARKANSAS

Please review the above stated document under provisions of Section 404 of the Clean Water Act, Section 102(2) of the National Environmental Policy Act of 1969 and the Arkansas Project Notification and Review System.

Your comments should be returned by MAY 18, 2004 to - Mr. Randy Young, Chairman, Technical Review Committee, 101 E. Capitol, Suite 350, Little Rock, AR 72203.

IF you have no reply within that time we will assume you have no comments and will proceed with the sign-off.

NOTE: It is imperative that your response be in to the ASWCC office by the date requested. Should your Agency anticipate having a response which will be delayed beyond the stated deadline for comments, please contact Ms. Debby Davis of the ASWCC at (501) 682-1611 or the State Clearinghouse Office.

☐ Support ☐ Do Not Support (Comments Attached)

☐ Comments Attached ☐ Support with Following Conditions

☒ No Comments ☐ Non-Degradation Certification Issues  
(Applies to ADEQ Only)

RECEIVED  
04 MAY 14 AM 10:57  
SOIL & WATER COMM.

Name(print) Anita Chouinard Agency FDPT Date Apr 4, 2004

Telephone Number 501-682-6946



# Arkansas GEOLOGICAL COMMISSION

VARDELLE PARHAM GEOLOGY CENTER • 3815 WEST ROOSEVELT ROAD • LITTLE ROCK, ARKANSAS 72304

Mike Huckabee  
Governor

Mac B. Woodward  
Director and State Geologist

April 30, 2004

Mr. Randy Young  
Chairman, Technical Review Committee  
101 E. Capitol, Suite 350  
Little Rock, Arkansas 72203

RECEIVED  
04 MAY - 3 AM 9:53  
SOIL & WATER GROUP

Dear Mr. Young:

This letter is a response to a request for comments on the final draft of the Environmental Assessment for the Security Forces Regional Training Center at the Little Rock Air Force Base (LRAFB). Please review the attached letter of comments dated February 11, 2004. Since these comments were contained in this report I have no further comments to make.

Sincerely,

William Lee Prior  
Geologist Supervisor



STATE OF ARKANSAS

OFFICE OF INTERGOVERNMENTAL SERVICES

Department of Finance  
and Administration

1515 West Seventh Street, Suite 412  
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Little Rock, Arkansas 72203-8031  
Phone: (501) 682-1074  
Fax: (501) 682-5206  
http://www.state.ar.us/dfa

**MEMORANDUM**

TO: All Technical Review Committee Members

FROM: Tracy L. Copeland, ~~TRC~~ Manager - State Clearinghouse

DATE: April 27, 2004

SUBJECT: (FINAL DRAFT)-ENVIRONMENTAL ASSESSMENT-SECURITY FORCES REGIONAL TRAINING CENTER AT LITTLE ROCK AIR FORCE BASE ARKANSAS

RECEIVED  
MAY - 3 AM 9:53  
SOIL & WATER CONM.

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☒ Comments Attached ☐ Support with Following Conditions

☐ No Comments ☐ Non-Degradation Certification Issues  
(Applies to ADEQ Only)

Name(print) Mac Woodward Agency AGC Date 4-30-04

Telephone Number 683-0113



# Arkansas Soil & Water Conservation Commission



J. Randy Young, PE  
Executive Director

101 East Capitol, Suite 350  
Little Rock, Arkansas 72201  
[www.accessarkansas.org/aswcc](http://www.accessarkansas.org/aswcc)

Phone: (501) 682-1611  
Fax: (501) 682-3991  
E-mail: [aswcc@mail.state.ar.us](mailto:aswcc@mail.state.ar.us)

Mike Huckabee  
Governor

May 4, 2004

Ms. Kate L. Bartz  
Science Applications International Corporation  
2617 East 7<sup>th</sup> Street  
Tucson, Arizona 85716

Re: Security Forces Regional Training Center – Environmental Assessment (EA)  
Security Forces Regional Training Center – Finding of No Significant Impact (FONSI)

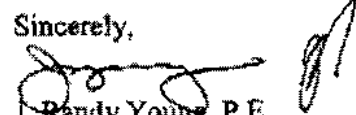
Dear Ms. Bartz:

Thank you for the opportunity to comment on the Final EA and FONSI regarding the proposal to establish a Security Forces Regional Training Center at Little Rock Air Force Base.

I concur with the Finding of No Significant Impact and have no further comments at this time. If you need further assistance, please contact Kenneth Colbert of my staff at 501-682-1608.

Again, thank you for the opportunity to review and comment on the Final EA and FONSI regarding the proposal to establish a Security Forces Regional Training Center at Little Rock Air Force Base.

Sincerely,

  
J. Randy Young, P.E.  
Executive Director

JRY/kc



STATE OF ARKANSAS

OFFICE OF INTERGOVERNMENTAL SERVICES

**Department of Finance  
and Administration**

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**MEMORANDUM**

TO: All Technical Review Committee Members

FROM: Tracy L. Copeland *ZTC* Manager - State Clearinghouse

DATE: April 27, 2004

SUBJECT: (FINAL DRAFT)-ENVIRONMENTAL ASSESSMENT-SECURITY FORCES REGIONAL TRAINING CENTER AT LITTLE ROCK AIR FORCE BASE ARKANSAS

Please review the above stated document under provisions of Section 404 of the Clean Water Act, Section 102(2) of the National Environmental Policy Act of 1969 and the Arkansas Project Notification and Review System.

Your comments should be returned by MAY 18, 2004 to - Mr. Randy Young, Chairman, Technical Review Committee, 101 E. Capitol, Suite 350, Little Rock, AR 72203.

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☐ Support ☐ Do Not Support (Comments Attached)

☒ Comments Attached ☐ Support with Following Conditions

☐ No Comments ☐ Non-Degradation Certification Issues  
(Applies to ADEQ Only)

Name(print) K. Collier Agency ASWCC Date 5-24-04

Telephone Number \_\_\_\_\_



Jandy Young, PE  
Executive Director

# Arkansas Soil & Water Conservation Commission

101 East Capitol, Suite 350  
Little Rock, Arkansas 72201  
[www.accessarkansas.org/aswcc](http://www.accessarkansas.org/aswcc)

Phone: (501) 682-1611  
Fax: (501) 682-3991  
E-mail: [aswcc@mail.state.ar.us](mailto:aswcc@mail.state.ar.us)



Mike Huckabee  
Governor

## MEMORANDUM

TO: Mr. Tracy Copeland, Manager  
State Clearinghouse

FROM: Mr. J. Randy Young, P.E.  
Executive Director

SUBJECT: Final Draft  
Environmental Assessment  
Security Forces Regional Training Center  
At Little Rock Air Force Base Arkansas

DATE: May 28, 2004

RECEIVED

JUN 09 2004

INTERGOVERNMENTAL  
SERVICES  
STATE CLEARINGHOUSE

Members of the Technical Review Committee have reviewed the above referenced project; the 314 AW at Little Rock Air Force Base, Arkansas is considering establishing a Major Command level Security Forces Regional Training Center at LRAFB that would provide a necessary training opportunity for periodic re-certification and training of Air Education and Training command Security Forces personnel in ground combat skills. The purpose of the proposal is to establish a RTC and improve the effectiveness of Security Forces training for critical Air and Space Expeditionary Force and Air Base Defenses skills, by concentrating on Air Base Defense tactics and completion of force protection Level II training in a relatively realistic field environment. The LRAFB site would enable AETC to meet its ground combat skills training requirements without relying on the limited training opportunities available at other MAJCOM RTCs. The proposed action is necessary because AETC does not have a dedicated Security Forces Regional Training Center and there are currently serious shortfalls in availability of Security Forces training opportunities at other Major Commands RTCs. Recent deployments to Afghanistan and Iraq, and other locations in the world, have revealed the importance and necessary for recurrent high quality ground combat skills training for Security Forces personnel. Under the proposal, the majority of the training would be conducted in the northeastern portion of LRAFB, known as Camp Warlord. The existing structures and facilities are only periodically use, including approximately 20 hooch's, or cabins, that could house 10 people. This makes the Camp Warlord location an ideal location for basing the RTC. Just west of Camp Warlord there is an existing 4-acre undeveloped area that has unpaved roadways throughout it. This site would provide an optimal opportunity for use as a 4WD confidence-training course, which is one of the training modules. Camp Robinson, located approximately 10 miles west of LRAFB, would be utilized only for weapons re-certification requirements. Camp Robinson has 32,000 acres suitable for training in many military capabilities, including 23 small arms ranges. The facilities at Camp Robinson support a wide variety of military and civilian agencies at the federal, state, and local levels, and are also the headquarters of the Arkansas National Guard. The Committee supports this project. Comments are attached for your review.

The opportunity to comment is appreciated.

JRY/ddavis



STATE OF ARKANSAS  
**Department of Finance  
and Administration**

**OFFICE OF INTERGOVERNMENTAL SERVICES**

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Little Rock, Arkansas 72203-8031  
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Fax: (501) 682-5206  
<http://www.state.ar.us/dfa>

June 10, 2004

Ms. Kate L. Bartz  
Science Applications  
International Corporation  
2617 East 7th Street  
Tucson, Arizona 85716

RE: Final Draft-Environmental Assessment-Security Forces Regional Training Center  
at Little Rock Air Force Base Arkansas

Dear Ms. Bartz:

The State Clearinghouse has received the above document pursuant to the  
Arkansas Project Notification and Review System.

To carry out the review and comment process, this document was forwarded to  
members of the Arkansas Technical Review Committee. Resulting comments received  
from the Technical Review Committee which represents the position of the State of  
Arkansas are attached.

The State Clearinghouse wishes to thank you for your cooperation with the  
Arkansas Project Notification and Review System.

Sincerely,

A handwritten signature in black ink, appearing to read "Tracy L. Copeland".

Tracy L. Copeland, Manager  
State Clearinghouse

TLC/lr  
Enclosure  
CC: Randy Young, AS&WCC

## ACRONYMS AND ABBREVIATIONS

P.L.	Public Law
PM <sub>2.5</sub>	particulate matter less than or equal to 2.5 micrometers in diameter
PM <sub>10</sub>	particulate matter less than or equal to 10 micrometers in diameter
POL	petroleum, oil, and lubricant
ppm	parts per million
PSD	Prevention of Significant Deterioration
PVC	polyvinyl chloride
RCRA	Resource Conservation and Recovery Act
ROI	region of influence
RTC	Regional Training Center
SAC	Strategic Air Command
SARA	Superfund Amendments and Reauthorization Act
SF	Security Forces
SHPO	State Historic Preservation Office
SIC	Standard Industrial Code
SIP	State Implementation Plan
SO <sub>2</sub>	sulfur dioxide
SOI	Signal Operating Instruction
SOTC	Senior Officer Tactician's Course
SR	State Route
SSII	Scope Shield II
SWDA	Solid Waste Disposal Act
TAC	Tactical Air Command
TASS	Tactical Automated Security Systems
TLF	Temporary Living Facility
µg/m <sup>3</sup>	micrograms per cubic meter
U.S.	United States
UFC	Unified Facilities Criteria
USACE	United States Army Corps of Engineers
USAF	United States Air Force
USC	United States Code
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
UST	underground storage tank
UTC	unit type code
VOC	volatile organic compound